ENCYCLOPEDIA OF

Contemporary American Social Issues

VOLUME TWO

Criminal Justice

MICHAEL SHALLY-JENSEN, EDITOR

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

VOLUME 1
BUSINESS AND ECONOMY

Michael Shally-Jensen, Editor

ABC-CLIO

Santa Barbara, California • Denver, Colorado • Oxford, England

Library of Congress Cataloging-in-Publication Data

Encyclopedia of contemporary American social issues / Michael Shally-Jensen, editor.
v. ; cm.
Includes bibliographical references and index.
Contents: Vol. 1: business and economy — Vol. 2: criminal justice — Vol. 3: family and society — Vol. 4: environment, science, and technology.
ISBN 978-0-313-39204-7 (set : alk. paper) — ISBN 978-0-313-39205-4 (set ebook)
1. United States—Social conditions—Encyclopedias. 2. United States—Economic conditions—Encyclopedias. 3. United States—Politics and government—Encyclopedias. I. Shally-Jensen, Michael.
HN59.2.E343 2011
306.0973—dc22 2010041517

ISBN: 978-0-313-39204-7
EISBN: 978-0-313-39205-4

15 14 13 12 11 1 2 3 4 5

This book is also available on the WorldWideWeb as an eBook.
Visit www.abc-clio.com for details.

ABC-CLIO, LLC
130 Cremona Drive, P.O. Box 1911
Santa Barbara, California 93116-1911

This book is printed on acid-free paper ♾

Manufactured in the United States of America

Contents

VOLUME 2: CRIMINAL JUSTICE

VOLUME 3: FAMILY AND SOCIETY

VOLUME 4: ENVIRONMENT, SCIENCE, AND TECHNOLOGY

Preface

The growing prominence of news, information, and commentary of all kinds, and in every medium, has unfortunately not always been matched by a deepening or a widening of consumers' understanding of the issues at hand. In this era of tweets and peeks (information and video clips), of blogging and befogging (electronic opining), people of all stripes are under increased pressure to make snap judgments about matters about which they may know little. The fact that so many of the issues of the day—corporate misdoings, criminal violence, the condition of the schools, environmental disasters—touch the lives of so many Americans suggests that awareness of them at *any* level is a good thing. At some point, however, one needs to move beyond the news feeds and sound bites and begin to appreciate current issues for the complex matters that they are. This is precisely what the *Encyclopedia of Contemporary American Social Issues* is designed to do.

As with other works of its kind, the present encyclopedia is intended to serve as a bridge between the knowledge of experts and the knowledge of those new to the subjects it covers. We present here, then, scholarly research on a broad array of social issues in a format that is accessible and interesting, yet informative. The contributors have taken care with both the quality of their prose and the accuracy of their facts, the aim being to produce entries that are clear, accurate, and thorough. Contributors and editors alike have paid attention to the language of the entries to ensure that they are written in an intelligible style without losing sight of the terms and conventions employed by scholars writing within their disciplines. Thus, readers will find here thoughtful introductions to some of the most pressing issues currently confronting American society.

Scope

The *Encyclopedia of Contemporary American Social Issues* is divided into four volumes: (1) Business and Economy; (2) Criminal Justice; (3) Family and Society; and (4) Environment, Science, and Technology. Within each volume, the entries are arranged in alphabetical order. There are just over 200 entries in the encyclopedia, the essays ranging in length from about 1,500 words to more than 8,000. Each essay discusses a contemporary issue and ends with suggestions for further reading.

The first problem in compiling an encyclopedia of this type, of course, is determining what constitutes a social issue. It would seem a common enough term about whose meaning there is general consensus. Still, the matter bears a quick review. The *American Heritage Dictionary* defines an issue as:

a. a point or matter of discussion, debate, or dispute;
b. a matter of public concern;
c. a misgiving, objection, or complaint;
d. the essential point, crux.

In other words, not only a matter of public debate or discussion but also a point of concern or matter about which there are misgivings or objections. Included in the mix, moreover, is the idea of a neat summary or something boiled down to its essentials.

In the present encyclopedia, readers will find entries reflecting these varied senses of the term *issue.* There are entries, for example, such as "Health Care," "Oil Drilling," and "Gun Control" whose subjects one often hears debated in public forums. On the other hand, there are entries such as "Globalization," "Sprawl," and "Social Justice" whose subjects are rather harder to identify as clear-cut matters for public debate and seem more like general areas of concern. Of course, more than the general public, it is scholars who routinely examine the ins and outs of various subjects; and for scholars there is little doubt that globalization and the like are key issues requiring careful description and analysis. Fortunately for readers of this encyclopedia, included here are the considered opinions of some 170 scholars and professionals from a variety of different fields, all of whom were asked to lay out "the essential points" for lay readers.

No encyclopedia can encompass the complete spectrum of issues within the contemporary United States. The question of what to include and what to omit is one that has vexed us from the start. The best strategy, we found, was to keep constantly in mind the readers who turn to a work like the *Encyclopedia of Contemporary American Social Issues,* whether in a school or college library or in a public library reference center. We recognize that reference works like this serve a range of purposes for the reader, from gleaning facts to preparing a research paper or introducing oneself to a subject in order to appreciate where it fits within the world at large. In the end, as editors who have been around school curricula and have worked in library reference publishing for many years,

we followed our own counsel in deciding upon the contents of this work. We do so knowing that we cannot satisfy all readers; we hope, however, that we have satisfied the majority of those in need of the kind of information presented here.

Although the emphasis is on *contemporary* social issues, the entries generally situate their topics in historical context and present arguments from a variety of perspectives. Readers are thus able to gain an understanding of how a particular issue has developed and the efforts that have been made in the past—including in the most recent times—to address it. Thus, perennial issues such as taxes, education, and immigration are examined in their latest permutations, and newer developments such as cloning, identity theft, and media violence are discussed in terms of both their antecedents and the conversations currently surrounding them. If there is any trend to be noted with respect to contemporary American social issues, it might only be that with each step forward comes the likelihood of further steps yet to be negotiated. We get from point A to point B only by making good use of our democratic heritage and anticipating the prospect of multiple voices or multiple intermediary steps. The *Encyclopedia of Contemporary American Social Issues* reflects that fact and advances the idea that it is useful to know where and how a question first arose before attempting to answer it or move it forward in the public agenda.

There is an established tradition in sociology that focuses on "social problems" and the many means by which these problems can be and have been researched and analyzed. Always something of an eclectic enterprise, and drawing on the collective wisdom of social scientists working in a variety of different fields (including criminology, demography, anthropology, policy studies, and political economy), in recent years the social problems tradition has widened its range still further to include questions about the environment, corporations, the media, gender politics, and even science and technology. It is this expanded version of the sociological traditional that the present encyclopedia takes as its animating vision. Encompassed herein are all of the above fields and more. We welcome the expansion and see it as linked to the broader meaning of the term *social issues.*

The four volumes assembled here—Business and Economy; Criminal Justice; Family and Society; and Environment, Science, and Technology—have benefited from work done earlier by others, work hereby democratically brought forward and expanded in scope. Specifically, we have drawn upon a series of books published previously by Greenwood Press and entitled *Battleground.* Key entries from that series have been updated, revised, rewritten, and in some cases replaced through the efforts of either the original authors or experienced editors knowledgeable in the applicable fields. In addition, some two dozen entries appear here for the first time, the aim being to ensure that issues emerging in the last few years receive the attention they deserve. Among this latter group of entries are "Bank Bailouts," "Cybercrime," "Consumer Credit and Household Debt," and "Airport and Aviation Security."

Acknowledgments

It is to the contributors, then, that I, personally, owe the greatest debt of gratitude. Without their patience and understanding, their expertise and professionalism, this work would not have been possible. An associate editor, Debra Schwartz, and development editor Anne Thompson provided invaluable service in the preparation of entries for publication, and the assistance of Scott Fincher in this regard is happily acknowledged as well. Acquisitions editor Sandy Towers, with whom I first worked in conceiving the project, proved a valuable friend and professional asset throughout the process. Also present from the beginning was Holly Heinzer, whom I thank for her support. Many thanks, too, to the production staffs at both ABC-CLIO and Apex CoVantage for their invaluable assistance in helping to refine the text and set up the volumes for publication. I am grateful to Jeff Dixon for handling the graphics.

—Michael Shally-Jensen

A

ADVERTISING AND THE INVASION OF PRIVACY

Phylis M. Mansfield and Michael Shally-Jensen

Networked Selling

Selling has gone social. Advertisers can now rely on consumers and their interests in locating bargains and evaluating shopping experiences to promote the advertisers' products. Most of us have had experience with a Web site such as Amazon.com, for example, where one's purchases are instantly calibrated in terms of other like-minded consumers' purchases and a targeted list of additional "recommendations" is presented for consideration. That was an early application of networked selling. Today, there are many more such "apps" and services, and with each new one consumers are asked to reveal ever more information about themselves, their personal preferences, and their buying habits. Using the smart-phone application Shopkick, for example, consumers are provided with advice on where to find bargains in local retail stores and can earn points, or credits toward purchases, merely by visiting a store—their presence is automatically recorded by an on-site Shopkick tracking device (Clifford 2010). Additional points can be earned by entering a dressing room to try on goods or by using one's phone to scan barcodes on items being promoted in the store. Shoppers also can invite friends to visit (thus earning more points) or share their shopping experiences through links to Facebook and Twitter (two popular social networking services). Swipely, another social shopping service, allows consumers to publish their purchases online merely by swiping their credit or debit cards at the time of purchase. Other users of the service may then comment on those purchases

or, as Swipely's motto puts it, "turn purchases into conversations." The idea is that by sharing and rating their buys and bargains, users will be able to discover new shops, restaurants, and products and find daily bargains (PBN Staff 2010).

In doing so, however, what used to be private information—how one spends one's money—becomes a public conversation. Obviously, not everyone will be attracted to these types of services, but Swipely, Shopkick, and a growing number of others seek to tap into a trend, particularly among young people, toward increased willingness to share the details of one's life with others as part of a digitally connected social network. The trend is clearly present and growing, but as of mid-2010 it represented but a small portion of the advertising industry's overall efforts to win buyers and influence shoppers.

Advertising in the Movies

In the 2006 comedy film *Talladega Nights: The Ballad of Ricky Bobby*, viewers probably were not too surprised to see the obvious pitches for NASCAR, Sprint, Wonder Bread, and Power Ade as the story unfolded. In fact, the advertising connection between the movie and products continued into the retail environment, as grocery stores began to sell NASCAR-branded hotdogs and other Talladega-branded merchandise—a phenomenon known as branded entertainment. Sports events, particularly auto racing, have long been associated with corporate sponsorships, which have grown to be an acceptable part of the experience. However, is the blitz of products as props or part of the story line in a movie an invasion of the customer's privacy? Consumers pay to be entertained by a movie, not to be exposed to a two-hour-long commercial.

Corporate sponsorship through product placements in movies, TV shows, and video games has become an increasingly prevalent method of promotion. Global spending on paid product placement promotion increased by 42 percent in 2005 and by another 39 percent in 2006. It declined by a few percentage points for the first time in its history in 2009, owing to the global economic recession. The United States is the world's fastest growing market in the phenomenon, estimated to have generated nearly $4 billion in 2009. Companies have found that this method of promotion is more precise in reaching their targeted audiences than regular television advertising since technology has allowed customers to stream ad-free or "ad-lite" versions of shows online or skip over TV commercials by using the TiVo digital system.

Movie executives have embraced the use of product placement and branded entertainment as a means to bolster their movie budgets and offset costs before the film is ever introduced to the public. One of the most profitable product placement agreements was in the 2002 movie *Minority Report,* starring Tom Cruise. Corporate sponsors paid close to $25 million in product placement fees for their products, representing one-fourth of the movie's total budget. Even the plot itself deals with the business of advertising. In the film, the character played by Tom Cruise walks through a shopping mall bombarded by holograph advertising messages as he passes each store. In the movie, this

AD SPENDING BY MEDIA

Media	Expenditure
Newspapers	$25.1 billion
Consumer magazines	$28.9 billion
Internet*	$9.7 billion
Network TV	$26.7 billion
Cable TV	$18.9 billion
Radio	$9.5 billion
Outdoor**	$3.9 billion
Spot TV (by station)	$10.7 billion
Branded entertainment**	$22.3 billion

*Does not include paid search advertising.
**Includes product placement, event sponsorship/marketing, advertising games, and webisodes.
Source: AdAge, June 22, 2009; *Product Placement News,* March 28, 2008.

was a scene from the future year 2054, but today's technology has increased the many ways that marketers are getting to their prospective customers. The future is already here in the world of advertising.

Searching for the Customer

Advertisers have used many forms of media to get their messages to potential customers over the years. Spending on advertising through radio, magazines, newspapers, and outdoor media (billboards) all peaked in the mid-1940s with the advent of television. Until 1994, newspapers were the largest ad medium. In 2009, television was the largest medium (including network, cable, and local), with magazines a distant second. While marketers are looking to other technologies to communicate to their customers—for example, mobile media (smart phones and other handheld devices)—the majority of media buys are still for the older types of media. One reason for this may be that costs to place ads on radio, on TV, in newspapers, or on billboards are higher than those for the Internet or other forms of direct marketing, and the returns may be better, or at any rate more predictable.

The cost issue may also be the reason companies are looking for other ways to reach their target audiences. One of these ways is for advertisers to show regular 30- and 60-second commercials in movie theaters before the featured movie begins. Advertisers look to this venue for two primary reasons: (1) they are able to reach a specific target segment with their ads, and (2) they have a captive audience. It is easier for a company to determine who is watching a certain genre movie than it is to target who is watching

a television program, and it is likely that the viewer is not going to switch to another station on the remote or TiVo the ad. An additional benefit to the advertiser is the effectiveness of this medium. Research shows that the audience retains the information in an ad shown in a movie theater better than in one provided by television or other media. Cinema advertising has grown almost 40 percent in the last five years and is expected to double to over $1 billion by 2011.

Another fast-growing method for targeting specific audiences and delivering advertising is through radio signal tracking. When radios are tuned in, they not only receive signals, they also transmit them. Technology allows companies to pick up radio signals from passing cars, determining what station the occupants are listening to. Although the technology was first used to measure consumers' actual listening habits of various radio stations, it is now being used for a more interactive purpose. MobilTrak, a company specializing in this technology, can pick up radio signals and give retail businesses specific data about the type of radio stations that the passing traffic is listening to. While a radio station can claim that it is the number one station in the market, it may be number one on the east side of town but not on the west. MobilTrak can help retailers target their advertising buys more specifically, so that they can place their commercials on the specific stations that are most popular in their geographical area.

This type of technology is also being used in outdoor advertising, where radio signals from passing traffic help to determine the specific ads that are on billboards. With the advent of multiple-ad billboards, where the ads change frequently through computer panels, several companies can share the cost of a single location. These electronic billboards can be set to change and show a new commercial every few seconds. However, with radio signal tracking, the ads change depending on the average demographic driving by at the time, determined by which radio stations they have tuned in. If the majority of the drivers are listening to a country station, the ad might be for a local truck dealer; however, if most of the drivers are listening to a public radio station, the ad might be for the local symphony.

Reaching the Customer by Phone

The idea of tracking specific customers as they pass by is not limited to radio signal technology. Marketers realize that people are spending more time on the Internet and cell phones than watching television, and so they are finding ways to develop commercials that get to the customer on these types of devices. Nearly 300 million consumers in the United States own mobile phones, providing a viable format for reaching large numbers of potential customers. In the film *Minority Report,* the character played by Tom Cruise is bombarded by holographic messages as he walks by stores. Today, the technology exists (based on the Global Positioning System, or GPS) that allows retailers to text message commercial ads as customers walk through a mall. They can identify specific customers and send a message about new items that are in the store or about specific items that are on special that day. Marketers can also send commercials to cell phone

screens. Many companies are revising the usual television ads and formatting them for the smaller screen. For now, it does not appear that consumers are offended by the ads; however, as more companies engage in this type of promotion, the public's attitude may change. The trend for mobile marketing is expected to grow significantly in the next few years.

Technology Enables New Methods

Technology has also enabled marketers to target their customers more specifically. For several years, personalized ads have run in magazines that are targeted to specific subscribers. Ads are included in magazines with the individual's name imprinted on the page, making the ad not only more personal but also more recognizable, therefore increasing the likelihood that the individual will read the message. This same type of technology is now being used to print special commercial messages on bank statements. Companies like Chase and Wells Fargo have been foregoing the usual mail inserts and instead have been imprinting personalized messages in the statements, through print and online. The messages typically are for other products that the companies offer or related products in which consumers may have an interest, like a financial planning seminar. However, in the future, these specialized ads could be for other companies' products and services.

Older technologies have also been employed for new purposes. In some larger retail outlets, managers use video cameras to track shoppers' movements and observe their buying habits. Companies such as Envirosell specialize in providing retailers with this service, supplying trained personnel to monitor the cameras and analyze the results. In some cases, the cameras have been used to monitor the behavior of floor salespersons—for example, to see whether they approach customers in a specified amount of time. Privacy advocates, such as those belonging to Consumers Against Supermarket Privacy Invasion and Numbering, find the practice to be a clear violation of individual privacy rights (Rosenbloom 2010).

Some Alternative Forms of Advertising

Whether enabled by technology, a spark from a creative advertiser's mind, or just plain common sense, there are many new, alternative means for the world of advertising to reach the potential customer.

The company marketing Purell hand sanitizer invented a new campaign that would reach potential customers in doctors' offices ("Purell" 2006). The company placed bright yellow, two-by-three-inch stickers on the top right corners of the magazines in a doctor's office waiting room. The stickers read "Caution" in large type: "How many patients have coughed on this" or "gently sneezed on this" or "Exposing patients to more than germs," all pointing to the need for Purell hand sanitizer. The ads further suggested that hand washing was not enough—that a hand sanitizer was necessary to kill the germs.

Another unique form of advertising was reported by National Public Radio; US Airways was planning to begin placing advertising for other companies on its air sickness bags. Seeing the blank space on the bags, a clever marketer felt that it would be able to bring some needed cash to the airline's bottom line.

Other companies have found blank space on city sidewalks, street posts, and even trees. Called *wild posting,* companies spray paint ads on sidewalks and street posts. Although the practice is illegal, the fines imposed on the companies are a fraction of what legitimate advertising would cost. In 2006, Reebok painted over 200 mini billboards on the sidewalks of Manhattan. Their fine was $11,000 in cleanup costs; however, if they had placed the same ads on 200 phone booths during the same period, it would have cost over $400,000. Old Navy found blank space on the trees along one Manhattan street and tied Old Navy logos on them (McLaren 2007).

On the golf course, many of the conveniences offered to golfers are also media for advertising messages. GPS screens mounted on golf carts offer several services: golfers can place orders at the clubhouse restaurant so that they can be ready when the game is over or keep electronic scores and compare themselves to other golfers. The screens also provide space for advertising, which can be tailored to the specific hole the cart is approaching. Additionally, ads have been placed in the bottom of each hole on a golf course so that when the player picks up the ball, the ad is seen. The golf course is an attractive medium to marketers due to the demographics of the players. It is estimated that there are 27 million golfers in the United States, a number that continues to grow—perhaps at a more exaggerated rate, with the number of baby boomers who will be retiring in the next decade. The players tend to be men (85 percent), own their own homes (80 percent), well educated (47 percent are college graduates), and have an average household income of over $100,000 (Prentice 2006).

Perhaps the most invasive form of alternative advertising is following consumers into public bathrooms. Initially, the ads were in the form of posters, primarily on the

CUSTOMER PREFERENCES IN ADVERTISING

Prefer Marketing That	
is short and to the point.	43%
I can choose to see when it is convenient for me.	33%
provides information about price discounts or special deals.	29%
is customized to fit my specific needs and interests.	29%

Source: "2005 Marketing Receptivity Study by Yankelovich Partners, Inc." Chapel Hill, NC: American Association of Advertising Agencies, April 2005.

back of stall doors and above the urinals. However, they have gone to new locations to reach the captive customer. Companies are placing ads on urinal mats in men's rooms, and, while not every company relishes the idea of men urinating on their logo, there are many that do. In fact, urinal mats are big business in bar bathrooms, and bathroom advertising is currently the fastest growing form of indoor advertising. In addition to the urinal mat are audio ads delivered via talking toilet paper dispensers, interactive poster ads that will emit a fragrance sample when pressed, and digital screens placed in the floor right in front of the toilet. All of these media are designed to reach a captive audience and can be tailored to fit the demographic of the audience. Ads can be placed in men's or women's rooms and can be targeted to the age group likely to be customers. Most interactive bathroom advertising is in the restrooms of nightclubs, bars, and restaurant-bar combinations.

When Is It Too Much?

While consumers have grown to expect advertising messages to appear through various forms of media, the proliferation of ads and the means by which marketers reach us could have negative consequences. At some point, consumers may say "enough." Consider a couple who have traveled out of town to attend a friend's wedding. After checking in, they retire to their hotel room and see the message light blinking on the phone. Expecting to retrieve their messages, they first hear a 30-second commercial for the restaurant down the street. Later, they go to dinner, maybe in that same restaurant. The man excuses himself to go to the restroom and, while relieving himself, reads an advertisement printed on a urinal mat. But our couple's exposure to commercial messaging does not stop here. When they get to their friend's wedding, they find that corporate sponsors have been invited to the wedding. The food is sponsored by a local restaurant, which has imprinted its logo and ad on the wedding tableware. The florist has a mobile billboard located just inside the reception hall, and the photographer's business cards are located at each table setting. The wedding has become a promotional event.

From the Marketer's Point of View

While there are many critics of advertising, the fact that our culture is exposed to advertising is a sign of an open society. Additionally, research suggests that the public actually *likes* advertising—but prefers that it be less obtrusive and on a time schedule that they select (see the sidebar "Customer Preferences in Advertising"). Marketers consider advertising to be a form of free speech and a part of doing business in a capitalistic society. Additionally, advertising is necessary for informing the public about the many products that are offered for sale. Gone are the days when Henry Ford offered his car only in black. Today, improvements in industrialization processes and technology have made it possible to offer a proliferation of products that can

CUSTOMER ATTITUDES TOWARD ADVERTISING

I am constantly bombarded with too much advertising.	65%
Advertising exposure is out of control.	61%
Advertising is much more negative than just a few years ago.	60%
I avoid buying products that overwhelm me with advertising and marketing.	54%
I am interested in products and services that would help skip or block marketing.	69%

Source: "2005 Marketing Receptivity Study by Yankelovich Partners, Inc." Chapel Hill, NC: American Association of Advertising Agencies, April 2005.

be tailored to every need. No longer does a customer go to the store to simply buy toothpaste; he is now met with a number of choices that even a decade ago was not thought to be possible. One can buy toothpaste made by Aim, Aquafresh, Colgate, or Crest, in paste or gel, and in flavors of mint, cinnamon, or orange; moreover, one has choices for sensitive teeth, tartar control, whitening, cavity prevention, and so on. The average supermarket in the United States offers approximately 33,000 products to choose from. It is estimated that every year there are an additional 25,000 new consumer products offered for sale; some are truly new products, and some are modifications of existing ones. However, the majority of these new products fail—as many as 90 percent of them in some industries—which keeps down the total number in stores at any given time. To cut through the product offering clutter, marketers feel the need to get the word out to their customers and inform them of the product's benefits, both tangible and intangible.

However, marketers also know that there is a saturation point for advertising, a point at which any additional expenditures are wasted on the customer. This saturation point differs by industry, type of product, content of the ad, and other variables, but it can be calculated for the specific ad and product. The question is, at what point does the customer become saturated by advertising in general? It is difficult for marketers to calculate this saturation point due to the number of products, ads, and media by which we are exposed to advertising every day. The number of messages each of us is exposed to every day is estimated to be as high as 3,500. However, it is suggested that we can only process and recall about 1 percent of them (Kitcatt 2006).

Will marketers continue to search for new methods to reach their targeted audiences? Will consumers grow weary of the onslaught of advertising or, worse, grow indifferent? At what point does it all become overkill?

See also **Marketing to Children; Marketing to Women and Girls; Sex and Advertising; Internet (vol. 4)**

Further Reading

Berger, Arthur, *Ads, Fads, and Consumer Culture,* 3d ed. Lanham, MD: Rowman & Littlefield, 2007.

Clifford, Stephanie, "Aisle by Aisle, an App That Pushes Bargains." *New York Times* (August 17, 2010).

Consumers against Supermarket Privacy Invasion and Numbering. http://www.nocards.org

Kirkpatrick, Jerry, *In Defense of Advertising: Arguments from Reason, Ethical Egoism, and Laissez-Faire Capitalism.* Claremont, CA: TLJ Books, 2007.

Kitcatt, Paul, "Be Heard—Speak Softly." *Marketing* (July 12, 2006): 24.

McLaren, Carrie, *As Advertisers Race to Cover Every Available Surface, Are They Driving Us Insane?* 2007. http://www.stayfreemagazine.org/archives/18/adcreep.html

PBN Staff, "Swipely Goes Live to U.S. Consumers as a Way to Share Purchase Experiences." *Providence Business News* (August 18, 2010).

Prentice, Kathy, *Fore! The Latest on Golf Course Ads.* 2006. http://www.medialifemagazine.com/news2003/jan03/jan06/1_mon/news5monday.html

Purell: Guerilla Marketing in the Doctor's Office. 2006. http://www.caffeine marketing.com/guerilla-marketing/purell-guerilla-marketing-in-the-doctors-office

Ries, Al, and Laura Ries, *The Rise of PR and the Fall of Advertising.* New York: Collins, 2002.

Rosenbloom, Stephanie, "In Bid to Sway Sales, Cameras Follow Shoppers." *New York Times* (March 19, 2010).

Schwartz, Barry, *The Paradox of Choice: Why More Is Less.* New York: HarperCollins, 2004.

Stanford, Eleanor, *Advertising: Introducing Issues with Opposing Viewpoints.* San Diego: Greenhaven Press, 2007.

Wilkins, Lee, and Clifford G. Christians, eds., *The Handbook of Mass Media Ethics.* New York: Routledge, 2009.

AFFIRMATIVE ACTION

William M. Sturkey

Affirmative action is the practice of preferential hiring for minorities to ensure that employees in businesses represent population demographics. In the American business world, there is a growing debate about whether affirmative action is effective, or even necessary. This article will concentrate on the history of the affirmative action concept in the United States and illustrate the arguments on each side of the affirmative action debate.

How and Why Did Affirmative Action Begin?

Affirmative action began largely as a result of the African American civil rights movement of the 1950s and 1960s. The first person to use the term *affirmative action* was President John F. Kennedy. His goal was to use affirmative action to ensure that the

demographics of federally funded positions represented the nation's racial demographics more proportionately. With the passage of the 1964 Civil Rights Act, eight months after Kennedy was assassinated, affirmative action began to spread to realms outside of government. Title VI of the act stated that "no person…shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VII laid out exemptions to this law, stating that, under special circumstances, gender, religion, or national origin could be used as a basis for employee selection. This was the beginning of the type of preferential hiring that we now refer to as affirmative action.

FIVE MYTHS ABOUT AFFIRMATIVE ACTION

1. *Affirmative action only benefits African Americans.* Affirmative action is designed for, and applied to, all minority groups, including white women.
2. *Over the last 30 years, affirmative action has clearly leveled the playing field for minority groups.* According to one study, although blacks represent approximately 12 percent of the U.S. population, they make up less than 5 percent of the management ranks and considerably less than 1 percent of senior executives (Brief et al. 2002). The disparity is prevalent among gender, too. Women who work full-time throughout the year earn approximately 78 percent as much as men (Stolberg 2009).
3. *Affirmative action costs a lot of white workers their jobs.* According to the U.S. government, there are fewer than 2 million unemployed African Americans and more than 100 million employed whites. Considering that affirmative action policies extend to only qualified job applicants, if every unemployed, and qualified, African American took the place of a white worker, less than 1 percent of whites would be affected ("Ten Myths" n.d.).
4. *Affirmative action gives preference to women and people of color based only on their race.* No one is ever hired or accepted strictly based on skin color. This practice is prohibited by law.
5. *Once an affirmative action candidate is hired, she has a job for life, no matter how poor her performance.* The terms of performance in the workplace are the same for minorities as they are for white men. Often, minorities are expected to contribute more to the workplace than white men due to stereotypes that all minorities in business are hired due to affirmative action.

Other myths surrounding affirmative action are that it was developed as a means to end poverty within certain social groups and that it was designed to make amends for slavery or similar economic hardships placed on various minority groups throughout the history of the United States. It was designed to open the door to a certain minority group's ability to obtain a foothold in workplaces from which they had consistently been excluded.

Kennedy's successor, Lyndon B. Johnson, was the first to use the term affirmative action in legislation. In Executive Order No. 11,246 (1965), Johnson required federal contractors to use affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to race, creed, color, or national origin. Johnson also wanted to extend Title VII into realms outside government-financed jobs.

Johnson's affirmative action was designed to implement institutional change so that American organizations could comply with the Civil Rights Act. The need for this change was based on the following assumptions: (1) white men comprise the overwhelming majority of the mainstream business workforce. Providing moral and legislative assistance to underrepresented minorities is the only way to create a more equal space in the business place. (2) The United States, as the so-called land of opportunity, has enough economic space for all its citizens. (3) Especially after the Civil Rights Act, the government assured itself, and the citizens of the United States, that public policy was the proper mechanism to bring about equality of opportunity. (4) Racial prejudice exists in the workplace, and it adversely affects the business and academic worlds' hiring of minorities. (5) Social and legal coercion is necessary to bring about desired change.

One of the most common misconceptions of affirmative action is that it sanctions quotas based on race or some other essential group category such as gender. It does not. This was affirmed in 1978 when the U.S. Supreme Court, in *Regents of the University of California v. Bakke,* ruled that racial quotas for college admissions violated the Fourteenth Amendment's equal protection clause, unless they were used to remedy discriminatory practices by the institution in the past. In *Bakke,* white applicant Allan P. Bakke argued that his application to the University of California, Davis's Medical School was denied due to the university's use of quotas to admit a specific number of minority students to the medical school each year. In its highly fractious decision, the Supreme Court ruled that Bakke's application was rejected because of the quota and ruled quotas unlawful. Muddying the waters, however, was Justice Powell's *diversity rationale* in the majority decision. The diversity rationale posited that ethnic and racial diversity can be one of many factors for attaining a heterogeneous student body in places of higher education. Thus, while *Bakke* struck down sharp quotas, the case created a compelling government interest in diversity.

How Is Affirmative Action Implemented?

Affirmative action requires companies to perform an analysis of minority employment, establish goals to create a more demographically representative workforce, and develop plans to recruit and employ minority employees. For most companies that have effective programs, affirmative action extends beyond hiring practices to include maintaining a diverse workforce, periodic evaluations of the affirmative action program, educating

and sensitizing employees concerning affirmative action policies, and providing a work environment and management practices that support equal opportunity in all terms and conditions of employment. Many of the biggest companies in the United States today have departments and legal staffs dedicated entirely to ensuring diversity in the workplace.

A multitude of problems inhibit or complicate the enforcement of affirmative action. The bulk of these problems include issues surrounding practices common to the modern business world, stereotypes, and employee preferences. Most of these problems

LEGAL HISTORY OF DIVERSITY IN THE AMERICAN PUBLIC SPHERE

Equal Pay Act of 1963

- Requires that men and women workers receive equal pay for work requiring equal skill, effort, and responsibility, and performed under similar working conditions.

Civil Rights Act of 1964

- Title VI states that "no person . . . shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."
- Title VII laid out exemptions to this law, stating that, under special circumstances, gender, religion, or national origin could be used as basis for employee selection.
- Executive Order No. 11,246 (1965) stated that "the head of each executive department and agency shall establish and maintain a positive program of equal employment opportunity for all civilian employees and applicants for employment within his jurisdiction in accordance with the policy set forth in Section 101."

1978, *Regents of the University of California v. Bakke*

- The U.S. Supreme Court decided that any strictly racial quota system supported by the government violated the Fourteenth Amendment and the Civil Rights Act of 1964.

1980, *Fullilove v. Klutznik*

- The Supreme Court upheld a federal law mandating that 15 percent of public works funds be set aside for qualified minority contractors.

1986, *Wygant v. Jackson Board of Education*

- The Court ruled against a school board whose policy it was to lay off nonminority teachers first, before laying off minority teachers.

1995, *Adarand Constructors v. Peña*

- The Court called for "strict scrutiny" to be applied to cases in which past discrimination is alleged, and it required affirmative action programs to be "narrowly tailored" to address specific issues at hand, not broad trends.

1997, California's Proposition 209

- California passed legislation that banned all affirmative action programs in the state.

2003, *Gratz and Hamacher/Grutter v. The Regents of the University of Michigan*

- The Supreme Court upheld the University of Michigan's law school admissions policy, which considered race as a factor.

2009, *Ricci v. DeStefano*

- The Court ruled that (non-minority) firefighters in New Haven, Connecticut, were justified in claiming reverse discrimination. The city had thrown out the results of advancement exams because it feared the results would prevent a sufficient number of minority candidates from advancing.

are extremely hard to investigate and often involve serious issues, such as personal relationships or job loss, that make the problem even more complicated.

One of the biggest problems facing U.S. companies today is how to handle affirmative action when downsizing. What role should affirmative action play when deciding who is expendable during downsizing? Rarely do companies plan downsizing strategies that include consideration of workforce diversity. When deciding who to downsize, employers have a great number of factors to consider. These factors include race, gender, seniority, tenure with the company, rank, and personal relationships. There is no standard way of dealing with downsizing because each situation, and each employer, is different. Juggling the aforementioned factors while paying attention to the levels of merit between employees now competing for jobs can become incredibly complicated and pressured.

Perhaps the most widespread problem facing effective affirmative action practices today is also the hardest to identify and fix and is the most complicated. This problem is commonly referred to as the *good old boy factor.* The good old boy factor involves nepotism, the employment of friends and family over those who may be more qualified for certain positions. The basic problem behind this type of employment is that the employer's family and close personal friends most often share the same ethnic background as the employer, thus limiting diversity in certain realms of employment. Ironically, although not termed this, the good old boy factor is, for all effective purposes, a form of affirmative action. However, this type of affirmative action does not require any amount of education, experience, competence, or overall job qualifications for employment. The way to handle this problem is to change the employment practices and values of the highest ranking executives in a company. However, because they are the highest ranking executives, they may not have anyone to whom they answer, and their immediate subordinates are often people hired due to their relationships as well. In reality, white men have been hired for years, and continue to be hired, due to racial and personal preferences.

THE GOOD OLD BOY FACTOR

The career of former Federal Emergency Management Agency (FEMA) director Michael Brown is an example of the good old boy factor at work. Before taking over FEMA, Brown was the judges and stewards commissioner for the International Arabian Horse Association (IAHA), from 1989 to 2001. Brown resigned his $100,000-a-year post in 2001 amid scandal. Brown left the IAHA so financially depleted that the organization was forced to merge with the Arabian Horse Registry of America and has since ceased to exist.

Shortly after his dismissal, Brown joined FEMA as general counsel, under the guidance of then FEMA director Joe Allbaugh, who ran President George W. Bush's 2000 election campaign. When Allbaugh resigned in 2003, Brown, with Allbaugh's recommendation, became the new head of FEMA, with an annual salary of $148,000.

When Hurricane Katrina hit the city of New Orleans on August 29, 2005, it quickly became one of the most horrific natural disasters to ever affect the United States. The storm killed more than 400 people, displaced approximately one million Gulf Coast residents, cost nearly 400,000 jobs, and caused as much as $200 billion in damage (*Katrina* 2005). While the storm was obviously beyond human control, the U.S. government, specifically FEMA and Brown, received criticism from across the globe pertaining to its slow response to the storm. Democratic and Republican politicians criticized FEMA and called for Brown's immediate dismissal. Brown was forced to resign on September 12, 2005, after a significant tragedy in U.S. history.

On September 9, 2005, *Time* magazine reported that it had found false claims in Brown's biography on the FEMA Web site. The biography exaggerated previous emergency experience, lied about a teaching award and job status at Central State University, and fabricated a role with the organization known as the Oklahoma Christian Home. Another member of the press, Michelle Malkin (2005), stated that Brown was a "worthless sack of bones. . . . And I don't care if he has 'Bush appointee' stamped on his forehead or a GOP elephant tattooed to his backside. Brown's clueless public comments after landfall are reason enough to give him the boot . . . and he should never have been there in the first place." Columnist Russ Baker (2006) wrote that "Michael Brown will forever remain the poster child for federal incompetence" and "it makes absolutely no sense that Michael Brown should have been holding any major government post." So why did this happen?

The answer is the good old boy factor. Mike Brown and Joe Allbaugh were college roommates and had been friends for decades. Allbaugh served on George Bush's administration while Bush was the governor of Texas and ran his 2000 presidential campaign. Allbaugh appointed Brown director of FEMA after his resignation from the post, despite Brown reportedly having few supporters within the organization. Instead of relying on credentials, President Bush and long-time political ally Joe Allbaugh hired one of Allbaugh's old friends, who, despite a misleading résumé and an apparent display of incompetence at his last job, had similar political interests. This is an example of good old boy affirmative action. Mike Brown received his job because of his long-time friendship with the administration, while other potential FEMA administrators were passed over. Good old boy hiring occurs in the business world all the time, and many believe that it is a key factor in inhibiting the objectives of affirmative action.

The Argument against Affirmative Action

Since its inception, affirmative action has constantly faced harsh critics who would like to see the process changed, altered, or disbanded altogether. The critics of affirmative action claim that the practice actually creates unequal hiring practices; is impractical; is unfair to those who, they claim, lose jobs due to the practice; and is even unfair to those who gain employment because they may not be able to do the work. One of the most common misconceptions about those who are against affirmative action is that they are all white conservative men. However, many minorities, even liberal ones, are also opposed to affirmative action, if not as a concept, then to the way it is implemented in the U.S. system. This section will outline some of the major arguments against affirmative action as it is generally applied in the United States today.

The most prevalent argument against affirmative action is that the practice creates reverse discrimination. Those who argue this stance point to Title VI of the 1964 Civil Rights Act, which was designed to prevent exclusion of minority groups based on race, religion, sex, or national origin. Those who claim reverse discrimination when arguing against affirmative action claim that white men are now victims of discrimination due to their race and sex.

One of the biggest changes in U.S. society over the past 40 years has been the cultural and judicial insistence on civil rights for every citizen. The most famous impetus for this sociological development was the civil rights movement of the 1950s and 1960s, which produced wide gains in the public sphere for African Americans. Included in these gains was the Civil Rights Act of 1964, which outlawed discrimination in public realms such as education, housing, and hiring practices. To many Americans, the treatment that African Americans experienced in this nation until this act was passed was unacceptable and unfair. By enacting the Civil Rights Act of 1964, President Lyndon B. Johnson created, in many citizens' eyes, an equal playing ground for African Americans. To them, affirmative action went beyond the means and goals of the Civil Rights Act of 1964 and was excessive because discrimination was now outlawed by the federal government, and African Americans would be on equal footing with whites.

Furthermore, many argue that affirmative action is unfair because those who lose, supposedly the white majority, and those who gain, supposedly all minority groups, are not all victims of the historical process that created past inequalities. They ask, why should contemporary whites have to pay for the inequalities created by past generations before they were born? At the same time, they ask, why should minorities, specifically African Americans, benefit from the socioeconomically subordinate positions their ancestors held in society? In essence, why should whites pay for discrimination that took place before they were born, and why should contemporary African Americans benefit from the suffering of their ancestors, which they have never experienced?

One of the most common arguments against affirmative action that comes from minority leaders is that affirmative action turns people into victims. When expecting the

government to take care of minorities and give them preferential treatment, individuals tend to act as if the government owes them something. Some do not consider this progress because it tends to alienate historically underprivileged minority groups from mainstream society.

Another part of this argument is that affirmative action taints minorities in the workplace. When minorities are hired for high-level positions, it is automatically assumed that they received their jobs due to affirmative action. This argument basically claims that individual accomplishments by people from minority groups are virtually impossible because of the cloud created by affirmative action. That cloud, they argue, often leads to assumptions that every minority person in the workplace is there because he or she is a minority and that this person took the job of a white man. This creates stereotypes and ineffective working environments because many minority employees may not be taken seriously.

There are many arguments against affirmative action as we know it today. The arguments are made from various viewpoints and from various political, racial, and economic groups. The opponents of affirmative action are many, and their arguments are multifaceted, with conflicting views prevalent even among would-be allies against this practice.

The arguments for affirmative action are somewhat different and have changed over the course of this practice. As a new type of anti–affirmative action ideology has developed, affirmative action advocates have answered the challenge.

The Argument for Affirmative Action

The historical origins of the argument for affirmative action are obvious. Throughout U.S. history, white men have dominated nearly every aspect of the social landscape. Affirmative action was developed in tandem with civil rights advancements to open more fully opportunities for minority citizens. The arguments supporting affirmative action have now taken the form of debunking myths and exposing truths that indicate problems and misconceptions in the arguments opposing affirmative action.

The biggest and most obvious argument in support of affirmative action challenges the notion of reverse discrimination and beliefs that job markets are closed to whites when competing with minorities. Proponents of affirmative action are quick to point out that, even though minority groups have achieved great gains, they are still underrepresented in the workforce, specifically in white-collar jobs. For example, African Americans and Latinos make up approximately 22 percent of the U.S. labor force. In comparison, they make up only 9 percent of U.S. doctors, 6 percent of lawyers, 7 percent of college professors, and less than 4 percent of scientists (Jackson 1996). Proponents of affirmative action are quick to point out that the labor force does not mirror an equal employment system. The number of age-eligible employees does not correlate to the percentage employed. If the system was equal, then employment figures should not be as lopsided as they are.

This argument also suggests that the Civil Rights Act of 1964 did not solve the United States' racial issues; it simply hid them. After the Civil Rights Act of 1964, and even today, African American and Latin American U.S. citizens are proportionately poorer than their white counterparts. The Civil Rights Act of 1964 opened spaces in the public sphere, but it did not provide concrete economic or financial means for success among minority groups.

Affirmative action backers also argue that diversity is good for society as a whole. Owing to the hiring, promotion, and economic advancement of minorities, diversity has started to seep into more realms of American life. In essence, diversity is becoming more mainstream than it was in the past. Because of this increased diversity, prejudices held about various minority groups have become less prevalent. Partially due to mainstream diversity, the United States is becoming more culturally affluent and accepting. Prejudice is no longer acceptable in most realms of U.S. society, and affirmative action offices and practices create environments in which diversity is accepted, learned, and experienced.

Pro–affirmative action advocates also argue that affirmative action has helped foster the development of minority role models as more and more minorities enter professional and political positions. Furthermore, their entry has led to the development of a raised consciousness among the American citizenry about issues such as racism, rape, immigration, and poverty that before were invisible to mainstream U.S. society.

Affirmative action advocates argue that, contrary to popular opinion, affirmative action is still necessary. The research being done by advocates shows very clearly that there is still a major discrepancy between the United States' population demographics and its social and economic characteristics. This discrepancy is most prevalent in the workplace and education, where affirmative action has been used the most. Not only do the advocates back their claims of inequality, they show how, in many ways, minorities in this country are hardly better off than they were when affirmative action was first implemented. They argue that affirmative action measures should be increased because of a lack of effectiveness and because of the token affirmative action that many firms use today. For all effective purposes, token affirmative action is affirmative action with quotas. In token affirmative action, the quota usually equals one. Companies will hire a token minority and appoint him or her to a public position to eliminate any doubts concerning the organization's diversity. It is often the case that beyond these token appointments, minority groups are underrepresented in all other sectors of the organization.

Affirmative action advocates have also argued that affirmative action is good for all people involved because it increases workplace diversity and expands traditional ideas. It not only helps individuals obtain positions previously unavailable to them, but it also helps create a broader sense of the world within individuals and within organizations. In essence, it forces people to broaden their horizons.

Conclusion

Affirmative action has become a very controversial topic. Opponents suggest that affirmative action causes reverse discrimination that hurts white men and, in fact, is detrimental to minorities who are placed because of it. Furthermore, they believe that the practice of affirmative action contradicts the basic civil rights guaranteed by the Constitution. Advocates believe that discrimination still exists and that affirmative action gives minorities a chance to work, which affects every aspect of their lives. The debate will continue until minorities are represented in every job class and type.

See also **Glass Ceiling; Immigrant Workers**

Further Reading

Anderson, Terry H., *The Pursuit of Fairness: A History of Affirmative Action.* New York: Oxford University Press, 2004.

Baker, Russ, *Unholy Trinity: Katrina, Allbaugh and Brown.* 2006. http://www.russbaker.com/The%20Real%20News%20Project%20-%20Unholy%20Trinity%20Katrina,%20Allbaugh%20and%20Brown.htm

Brief, Arthur P., et al., "Beyond Good Intentions: The Next Steps toward Racial Equality in the American Workplace." In *HRM Reality,* ed. W. R. Nord and L. A. Krefting. Upper Saddle River, NJ: Prentice Hall, 2002.

Dobbin, Frank, *Inventing Equal Opportunity.* Princeton, NJ: Princeton University Press, 2009.

Jackson, J. L., "People of Color Need Affirmative Action." In *Affirmative Action,* ed. A. E. Sadler. San Diego: Greenhaven Press, 1996.

Katrina Numbers Illustrate Storm's Toll. 2005. http://www.planetark.com/dailynewsstory.cfm/newsid/32446/story.htm

Katznelson, Ira, *When Affirmative Action Was White: An Untold History of Racial Inequality in Twentieth-Century America.* New York: W. W. Norton, 2005.

Kellough, J. Edward, *Understanding Affirmative Action: Politics, Discrimination, and the Search for Justice.* Washington, DC: Georgetown University Press, 2006.

Malkin, Michelle, *Not Another Damned Commission.* 2005. http://michellemalkin.com/archives/003492.htm

Stolberg, Sheryl Gay, "Obama Signs Equal Pay Legislation." *New York Times* (January 29, 2009).

"Ten Myths about Affirmative Action." Understanding Prejudice. http://www.understandingprejudice.org/readroom/articles/affirm.htm

B

BANK BAILOUTS

Elizabeth A. Nowicki

A "bank bailout" occurs when a regulatory or government authority provides assistance to a bank that is failing and on the path to insolvency. In a bank bailout, either a regulatory or government authority provides the funds needed for the bailout, or the authority orchestrates assistance of the failing bank by private parties, essentially rescuing or assisting a bank that would otherwise fail and go bankrupt. The people who have deposited their money with the bank (depositors) are otherwise likely to lose all of the money they thought they were depositing for safekeeping.

Bank bailouts are conducted in one of two ways: Either a bank that is on the verge of insolvency is prevented from failing by an infusion of capital that helps the bank continue in operation, or the failing bank is allowed to fail but the party providing the bailout helps the bank liquidate and guarantees repayment to the depositors.

In recent U.S. history, major bank bailouts have only occurred at four distinct times:

- 1930s: many banks were bailed out after the stock market crash of 1929.
- 1984: bailout of Continental Illinois National Bank, then the nation's seventh largest bank.
- 1985–1999: approximately 1,043 savings and loan institutions were bailed out.
- 2008–2009: bailouts included Bear Stearns, Fannie Mae and Freddie Mac, Lehman Brothers, AIG, Citigroup, and Bank of America.

Bank bailouts in the United States are controversial, in part because they come at a cost to taxpayers, they represent failure in an industry populated by highly paid executives, and they implicate what economists refer to as a "moral hazard problem," meaning that some believe that bailing out banks creates an incentive for bank managers to behave in a risky manner, since they know that their banks will be bailed out if their banks run into financial trouble. Yet bank bailouts have an emotional appeal, in part because bailouts of major banks are often preceded by urgent clamors that the failing bank needs to be assisted because it is "too big to fail." The too-big-to-fail theory posits that, if a large bank is allowed to fail, there could be catastrophic ripple effects in the economy, as parties with whom the bank was dealing will lose money on transactions or deposits they had with the failed bank, such that these other banks will be compromised and will not be able to continue robust lending to businesses, such that businesses will not be able to expand or will need to lay off employees, and unemployed consumers will then cut back on purchases, such that demand for goods and services will decrease, which will result in businesses laying off more employees, and a vicious and devastating economic cycle will be created.

That said, bailouts generate populist anger, and, in his first state of the union address, during the beginning of the 2008 bank bailouts, President Barack Obama noted that "if there's one thing that has unified Democrats and Republicans—and everybody in between—it's that we all hated the bank bailout. I hated it." Still, the president observed that the bailouts were "necessary," much like a root canal.

History of Bank Bailouts

The modern history of bank bailouts in the United States began in the 1930s, after the stock market crash of 1929. When the stock market began crashing, large numbers of people began withdrawing their money from banks. This compromised the ability of banks to pay depositors who wanted to withdraw their money, since banks only keep a limited amount of cash on hand, instead maintaining the rest of their money in less liquid assets such as investments and insurance. The inability of banks to immediately pay every depositor who wanted to withdraw her money raised concerns about whether banks would be able to repay all of their depositors, which led to panicked "bank runs." In order to repay depositors, banks needed to liquidate assets, but, given the declining economic climate, banks were forced to sell assets at gravely depressed prices. Therefore, many banks were unable to raise enough cash to pay all of their depositors, and some banks became insolvent. Fear of insolvency exacerbated the bank runs, which put an even greater strain on the available cash remaining and forced even more asset sales, which further depressed the prices at which assets could be sold by banks, such that bank runs became contagious and accelerated the failure of banks that had run out of money.

The Federal Reserve, which was created by legislation passed in 1913, had the authority to provide assistance to troubled banks, but its mandate extended only to member

banks, which did not include the majority of the smaller failing banks. Moreover, the Federal Reserve would only make temporary loans on good collateral, which banks failing in the midst of the Great Depression did not have. Bank failures soared, with 2,294 occurring in 1931 (Kennedy 1973, 1), and almost 13 percent of the nation's remaining banks suspending operations by 1933 (Meltzer 2003, 402n153).

Overall, the economic climate was dismal: the stock market had crashed, so many investors lost everything. Moreover, banks were failing such that depositors were losing their remaining savings, borrowing money was nearly impossible, and bank runs were commonplace. Pervasive panic and a crisis of public confidence compounded the problems. Therefore, the government decided to act.

In 1932, the government established the Reconstruction Finance Corporation (RFC) to help distressed banks, and, in 1933, the Emergency Banking Act of 1933 authorized the RFC to bail out banks directly by purchasing preferred stock from distressed banks to infuse new capital into these banks, backed by the United States Treasury. The RFC purchased roughly $782 million in bank preferred stock and $343 million in bank bonds, resulting in the bailout of nearly 6,800 banks. The RFC ceased operations in 1953, but the Federal Deposit Insurance Corporation (FDIC), an independent agency of the federal government established by the Banking Act of 1933, continued to exist and conduct bank bailouts.

The FDIC was created in order to address the public confidence crisis that led to the catastrophic bank runs after the stock market crash of 1929 and to prevent future confidence crises. The FDIC preserves public confidence by insuring deposits in banks to eliminate depositor worries about losing deposits and by monitoring and addressing both systemic risk and deposit-related risk. The FDIC is funded by insurance premiums that banks pay for deposit insurance and from earnings on investments in U.S. Treasury securities. The Federal Deposit Insurance Act of 1950 gave the FDIC the power to bail out a failing bank if that bank was judged essential to the community.

After the bank bailouts in the 1930s, the next major bank bailout was in May 1984, when the FDIC bailed out the Continental Illinois National Bank and Trust Company (Continental Illinois), the seventh largest bank in the United States as measured by deposits. Continental Illinois was struck a fatal blow in part due to bad loans compounded by a bank run, and bank regulators intervened because of a concern that grave damage could be done to the banking system as a whole otherwise. Specifically, many other banks had invested heavily in Continental Illinois, and regulators feared that if Continental Illinois were allowed to fail, banks that lost their investments in Continental Illinois would then fail, with a grievous public confidence impact that would lead to economic disaster (Federal Deposit Insurance Corporation 1997, 250–251). Therefore, the FDIC provided over $4 billion in various forms of assistance to Continental Illinois.

The savings and loan bailout in the 1980s was next. Savings and loans financial institutions (S&Ls) were financial institutions that specialized in residential lending and

home mortgages (White 1991, 82–89). They took in money from depositors to whom they then paid high interest rates, and they lent out that deposited money to home buyers needing mortgages. S&Ls began failing in the 1980s as real estate markets began to soften. The value of the assets secured by the mortgages fell, and the S&Ls' ability to pay depositors disappeared. A wave of S&L failures exhausted the available funds in the government-established industry insurance organization, the Federal Savings and Loan Insurance Corporation (FSLIC), which functioned much like the FDIC.

Concerned about how the collapse of the S&L market might undermine the economy, Congress authorized the creation of a new agency, the Resolution Trust Corporation (RTC), to bail out the S&Ls by way of bailing out the FSLIC so that the FSLIC could repay S&L depositors. The RTC, as created by the 1989 Financial Institutions Reform, Recovery, and Enforcement Act, oversaw the sale of assets of failed S&Ls and repayment of S&L depositors. From 1986 to 1995, over 1,000 S&Ls with assets of more than $500 billion failed, costing an estimated $153 billion in bailout money, $124 billion of which came from U.S. taxpayers (Curry and Shibut 2000, 33).

The next major bank bailouts began in 2008, when the U.S. banking system experienced a liquidity crisis (Congressional Oversight Panel 2009, 4–6), banks began failing, and some feared that the economy was being destabilized. Although the precise cause of the banking crisis is still under debate, as described below, the response that followed included massive bank bailouts coupled with a related legislative overhaul.

The Recent Financial Crisis and Bank Bailouts

The bank bailouts that began in 2008 were part of what some viewed then and continue to regard as the worst financial crisis since the Great Depression. The cracks in the U.S. economy infrastructure that led to the crisis and the bailouts started to show in 2006 and 2007, however. Specifically, until approximately 2006, the U.S. housing market experienced what some would call a "bubble." Driven by subprime lending—lending to borrowers who traditionally had been viewed as undesirable due to, for example, having little or no money available as a deposit—and facilitated by securitization and derivative financial products, housing prices escalated as housing borrowing and sales skyrocketed (Congressional Oversight Panel 2009, *supra* note 9, at 8). Housing prices increased at an average of 12 percent per year from 1999 to 2006 (Congressional Oversight Panel 2009, *supra* note 9, at 8).

In 2006, however, housing prices began a modest decline that spiraled into a double-digit percentage decline by 2008 (Congressional Oversight Panel 2009, *supra* note 9, at 8). This led to a rash of mortgage defaults by subprime borrowers and a spate of home foreclosure sales by banks, and banks found themselves unable to sell at a price high enough to recoup what they had lent. Foreclosure sales accelerated the decline of real estate prices, and a dismal financial free fall eclipsed the beginning of 2008. The carnage from this lending and housing implosion was magnified by widespread use of derivatives and

securitization products by banks; therefore, even financial institutions that did not hold mortgages but held instead, for example, credit default swaps or other mortgage-related derivative products suffered from the market decline as well (Congressional Oversight Panel 2009, *supra* note 9, at 9).

The first major bank bailout in 2008 was that of Bear Stearns, the fifth largest U.S. investment bank and the leading trader of mortgage-backed bonds. In early 2008, Bear Stearns reported that it was highly exposed to the unstable subprime mortgage market. Alarmed, Bear Stearns clients withdrew their funds from Bear Stearns, and within three days in March 2008, Bear Stearns's available capital fell by 90 percent (Ritholtz 2009, 187). This prompted Federal Reserve and Treasury officials to try to arrange for a bailout of Bear Stearns. The bailout resulted in JPMorgan Chase buying Bear Stearns upon the agreement of the Federal Reserve Bank of New York to guarantee $29 million in Bear Stearns's riskiest assets, which led to reported losses of billions of dollars for the Federal Reserve Bank within months of participating in this bailout.

Shortly thereafter, Lehman Brothers, another banking behemoth, began to fail. While many clamored for a bailout for Lehman Brothers, it was instead allowed to fail completely and file for bankruptcy in September 2008, after the Federal Reserve and the Treasury made clear that they hoped never again to need to rescue a bank the way they rescued Bear Stearns (Ritholtz 2009, 190–192).

Lehman's failure spurred fears that other big banks and financial institutions would soon fail and the entire economy would be destabilized. Concern focused on American International Group (AIG), the world's largest insurer. AIG was deeply involved in the international derivatives market, and, in September 2008, as it became clear that many of AIG's investments were tied to failing mortgage-related assets, regulators decided that the world's largest insurer and a key participant in the international derivatives market must not be allowed to fail, because its failure could have far-reaching economic effects.

The Federal Reserve System is the central bank of the United States, and it was founded in 1913 by Congress to provide a more stable, safer monetary and financial system. It has four general categories of duties: influencing monetary and credit conditions in order to stabilize the economy, supervising and regulating banking institutions, containing systemic risk, and providing financial services to depository institutions and the U.S. government, among others. The chairman of the Federal Reserve oversees the seven-person board of governors of the Federal Reserve. The chairman and the board are appointed by the president. The secretary of the Treasury is appointed by the president and is the federal government's chief financial officer. The secretary, among other things, advises the president on tax and financial policy, oversees currency manufacturing, manages public debt, and serves on boards such as the Social Security Fund, the Medicare Fund, and the International Monetary Fund.

The Federal Reserve and Treasury purchased a majority stake in AIG stock for $68 billion, thereby providing much-needed capital to AIG, and the government continued to make additional loans and purchases of stock so that, by March 2009, the government had infused roughly $175 billion into AIG (Ritholtz 2009, 208).

September 2008 also saw the government takeover and bailout of the Federal National Mortgage Association (Fannie Mae) and Federal Home Loan Mortgage Association (Freddie Mac). These two government-sponsored enterprises (GSEs) had been established by Congress to participate in the mortgage market and foster the accessibility of home loans. As the subprime mortgage market deteriorated, Fannie Mae and Freddie Mac became financially compromised, and Congress adopted legislation to provide for the government takeover of both GSEs in addition to the Federal Reserve infusing well over $100 billion into the GSEs.

Also in 2008, Citigroup, a Wall Street titan that had combined commercial banking with investment banking and a brokerage house, became a focus of concern. Citigroup held billions of dollars in mortgage-related securities whose value plummeted as the housing and mortgage markets crashed. The Treasury and Federal Reserve refused to risk a fatal blow to the already precarious banking system by allowing the largest financial institution on Wall Street to fail, so a complex deal valued at hundreds of billions of dollars to stabilize Citigroup was struck (Ritholtz 2009, 217).

The Citigroup bailout and later bailouts (including bailouts in the automotive industry) were a product of legislation—the Emergency Economic Stabilization Act (EESA)—hastily adopted on October 3, 2008, in the wake of the expanding financial crisis. EESA established the Troubled Assets Relief Program (TARP)—the bailout program. The program authorized the secretary of the Treasury, in consultation with the chairman of the Federal Reserve, to purchase up to $700 billion in "troubled assets," such as subprime mortgage-based securities, in order to promote financial market stability by removing toxic assets from the banks' balance sheets.

By the end of 2009, the Treasury had disbursed over $350 billion under TARP (General Accounting Office 2009). For example, pursuant to TARP, the FDIC, Treasury, and Federal Reserve entered into an agreement with Bank of America in January 2009 to purchase $20 billion in preferred stock from Bank of America and provide protection against loss for approximately $118 billion in assets. Banks that participated in TARP or received bailouts pursuant to TARP included some of the biggest and previously strongest banks, such as Citigroup, JPMorgan Chase, Wells Fargo, Bank of America, Goldman Sachs, and Morgan Stanley, and the top nine participants in TARP represent 55 percent of all U.S. bank assets.

Conclusion

Bank bailouts are not a new phenomenon, but the massive bailouts in 2008 and 2009 have forced both politicians and bankers to revisit the necessity of bailouts, the advisability of bailouts in general, and the reasons why, in less than a century, the United

States has needed two massive rounds of bank bailouts. Is there a way to restructure the banking system to avoid the need for bailouts? What would have happened if no bailouts were provided in the 1930s and in 2008–2009? Would the billions of dollars spent on bank bailouts be better spent on a different facet of banking?

These are some of the obvious questions raised by reflecting on the major bank bailouts in recent U.S. history. It remains to be seen whether the common themes underlying these bailouts repeat again or whether valuable lessons can be learned from reflecting on these bailouts and finding ways to avoid the need for bailouts in the future.

See also **Financial Regulation; Government Subsidies**

Further Reading

Black, William K., *The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry.* Austin: University of Texas Press, 2005.

Calavita, Kitty, Henry N. Pontell, and Robert H. Tillman, *Big Money Crime: Fraud and Politics in the Savings and Loan Crisis.* Berkeley: University of California Press, 1997.

Congressional Oversight Panel, *December Oversight Report: Taking Stock: What Has the Troubled Asset Relief Program Achieved?* December 9, 2009. http://cop.senate.gov/documents/cop-120909-report.pdf

Curry, Timothy, and Lynn Shibut, "The Cost of the Savings and Loan Crisis: Truth and Consequences." *FDIC Banking Review* (December 2000).

Federal Deposit Insurance Corporation, "Continental Illinois and 'Too Big to Fail.'" In *History of the Eighties—Lessons for the Future.* Vol. 1, *An Examination of the Banking Crises of the 1980s and Early 1990s.* Washington, DC: FDIC Division of Research and Statistics, 1997. http://fdic.gov/bank/historical/history/235_258.pdf

Federal Deposit Insurance Corporation, "The S&L Crisis: A Chrono-Bibliography." 2002. http://www.fdic.gov/bank/historical/s&l/

General Accounting Office, *Troubled Asset Relief Program: One Year Later, Actions Are Needed to Address Remaining Transparency and Accountability Challenges—Highlights.* October 2009. Washington, DC: GAO-10–16.

Kennedy, Susan Estabrook, *The Banking Crisis of 1933.* Lexington: University Press of Kentucky, 1973.

Lewis, Michael, *The Big Short: Inside the Doomsday Machine.* New York: W. W. Norton, 2010.

Meltzer, Allan H., *A History of the Federal Reserve.* Vol. 1, *1913–1951.* Chicago: University of Chicago Press, 2003.

Olson, James S., *Saving Capitalism: The Reconstruction Finance Corporation and the New Deal, 1933–1940.* Princeton, NJ: Princeton University Press, 1988.

Ritholtz, Barry, *Bailout Nation: How Greed and Easy Money Corrupted Wall Street and Shook the World Economy.* Hoboken, NJ: John Wiley, 2009.

Stern, Gary H., and Ron J. Feldman, *Too Big to Fail: The Hazards of Bank Bailouts.* Washington, DC: Brookings Institution Press, 2004.

White, Lawrence J., *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation.* New York: Oxford University Press, 1991.

Woelfel, Charles J., *Encyclopedia of Banking and Finance,* 10th ed. Chicago: Probus, 1994.

C

CONGLOMERATION AND MEDIA MONOPOLIES

William M. Kunz

Conglomeration poses a range of issues for citizens and consumers. Does the presence of prominent news outlets in multinational conglomerates influence the coverage of contentious social and political issues? What effect does industry concentration have on media content—motion pictures, television programs, music, and so on? Does the loss of diversity in ownership result in the replication of money-making formulas that promote a corporate ethos at the expense of original ideas? Overall, does consolidation make it impossible or at least improbable for independent voices and viewpoints to reach citizens and consumers? These are just a few of the questions that surround the ownership controversy.

The focal point in the battle over media conglomeration is the concentration of prominent news and entertainment firms in a handful of corporations. Free market advocates argue that centralized ownership is necessary if companies are to remain profitable. They point to the explosion in the number of programming outlets, arguing that consolidation has not restricted the variety of media content. But opponents contend that conglomeration eliminates alternative viewpoints and empowers corporate media to promote dominant ideas and frame public discussion and debate.

Defining Conglomeration

Conglomeration is the process through which distinct companies come under common ownership within a single corporation. There are two different models of conglomeration,

and prominent media firms fall within each of them. The traditional definition of conglomeration involves the grouping of wide-ranging, unrelated businesses from various industrial sectors. This model involves unrelated diversification, which is the expansion into industries that are not related to the core business of a conglomerate. The General Electric acquisition of NBC in 1986 is a classic example of this type. A second model of conglomeration builds through related diversification, which involves the acquisition of firms that are connected to the core business in critical areas. The evolution of Viacom is an example of this form. Cable television was Viacom's core business in the 1980s, with ownership of MTV, Nickelodeon, and Showtime, before it expanded into motion pictures and broadcast television with the acquisitions of Paramount Pictures in 1994 and CBS in 2000.

Monopolies

Conglomeration is one factor that leads to concentration, and ultimate consolidation results in monopolies. That structure exists when there is just a single seller of a given product in a market. True monopolies have traditionally been most common in the newspaper business. Countless cities have just one daily, like Atlanta's *Journal-Constitution.* More recently, cable systems operators have been subject to similar criticism. Far more common, however, are media markets that are oligopolies, which feature a few

CONGLOMERATION AND THE LOSS OF LOCALISM

The headlines about conglomeration are often written when studios and networks combine, but less discussed is the potential impact at the local level. Local ownership of newspapers was once common, but as newspaper chains expanded, local ownership became rare and the number of cities with multiple dailies declined. The nature of local television and radio ownership also changed, as Congress and the Federal Communications Commission (FCC) relaxed one-to-a-market rules and allowed groups to reach a higher percentage of households nationwide. These changes transformed the marketplace with massive station groups and less local ownership, and more appear to be on the horizon. In 2003, the FCC voted to relax its prohibition on the cross-ownership of newspapers and television stations in the same market. The justification was the numerical increase in the number of available outlets, including the Internet. The firestorm that followed made clear that there was not universal agreement, and courts blocked their implementation, but the FCC started down a similar path in 2006. By the end of the decade, corporate control of multiple media outlets within local markets had generally increased, raising questions about information democracy. In a few cases, for example, complaints were made regarding cable companies that were allegedly blocking ads by their competitors. Such disputes (for example, between Verizon and Cablevision in 2009), usually faded after the company named in the complaint publicly denounced the practice and demonstrated access to its medium or services by competitors.

giant sellers of a product with each having a significant share of the market. In the mid-2000s, for example, four global giants—Universal Music, Sony BMG, Warner Music, and EMI Group—accounted for over 80 percent of music sales in the United States and worldwide. Some use the phrase *media monopolies* to describe the small collection of corporations that are dominant in various media markets.

Issues of Ownership and Control

One of the battle lines in the debate over conglomeration is whether ownership and control matters. From a free market perspective, ownership of a firm is not a concern unless combinations create market structures that lead to anticompetitive conditions. The Sherman Antitrust Act was enacted in 1890 to address such behavior in the United States, and it has shaped media markets. In 1938, the federal government launched a decade-long legal battle with the Hollywood studios, accusing the majors of "combining and conspiring" to "monopolize the production, distribution and exhibition of motion pictures." When the same corporation owns production studios as well as the theaters that show the movies it makes, the control of production, distribution, and exhibition could effectively close out competition. The so-called Paramount consent decrees, a series of agreements between the government and studios, prohibited anticompetitive behavior and forced the "divorcement" of production and distribution from exhibition. Free market advocates argue that this is as far as the government should delve into the marketplace.

The question is whether the nature of media products raises more significant concerns and demands additional government action. The attention to such issues has shifted over time as new ideas and ideologies come to the fore. In 1966, International Telephone and Telegraph (ITT) attempted to acquire the ABC television network, and despite claims that the network would remain independent, the Department of Justice and others questioned the impact ITT's international operations might have on ABC News and blocked the merger. Two decades later, the regulatory climate was altogether different, and there was little opposition to the combination of General Electric and NBC, although the issues were very similar. Much the same could be said of the 2007 purchase of Dow Jones, publisher of the *Wall Street Journal,* by News Corp., owner of the Fox Broadcasting Company. There was a vocal minority opposed to the sale, but the transaction went through unhindered.

The focus on ownership and control hinges, in part, on the potential impact of media content. Mark Fowler, chair of the Federal Communications Commission (FCC) in the 1980s, once stated that a television is nothing more than a "toaster with pictures." This, in turn, meant that the government could treat television the same as other industries. Scholar Douglas Kellner, however, argues that television assumes a critical role in the "structuring of contemporary identity and shaping thought and behavior." In his view, television has undertaken functions once ascribed to "myth and ritual," including

"integrating individuals into the social order, celebrating dominant values," and "offering models of thought, behavior, and gender for imitation." From this perspective, media play a significant role in society and conglomeration becomes a far more serious issue.

Types of Conglomeration

There are multiple incentives for conglomeration. The expansion into diversified businesses creates opportunities for growth and allows a conglomerate to cushion the impact of downturns in core business sectors. General Electric is often cited as the model of a diversified conglomerate, and its collection of businesses makes it, among other things, a military contractor and designer of nuclear power plants. For much of its life under General Electric, NBC Universal has contributed less than 10 percent of the total revenue of the parent company. Yet, with a number of news outlets, NBC might be thought of as more important to the parent company in helping shape public debate over contentious issues, such as militarism and energy production, through NBC News, MSNBC, and CNBC. In 1987, for example, less than a year after the meltdown of the nuclear reactor in Chernobyl, NBC News aired an hour-long show titled "Nuclear Power: In France It Works."

Even so, in a weak economy, business is business—which is perhaps why General Electric decided to sell a controlling interest (51 percent) in NBC to the Comcast cable company in 2009. The latter sale raises a host of additional questions concerning media consolidation, such as: What is the potential for loss of free network television content? What is the likelihood of price hikes for consumers of cable services? Does the sale foster or further limit media competition? And what of the matter of "information democracy"?

Synergy

As the NBC sale demonstrates, the practice of related diversification is increasingly common in media industries. This practice allows a conglomerate to build upon a strong business through the diversification into areas that are close to the core. This can create synergies that enable it to increase revenues and decrease costs through the common management of multiple businesses. This is evident in the conglomeration of media assets in corporations such as the Walt Disney Company, Time Warner Inc., and News Corp. motion picture production and distribution remain important contributors to the Disney bottom line, for example, but the most successful unit in Disney is the Media Networks division, which includes both ABC and ESPN. Disney's corporate expansion into related fields proved to be quite lucrative.

Horizontal and vertical integration are defining characteristics in media consolidation since the 1980s. With horizontal integration, firms acquire additional business units at the same level of production, distribution, or exhibition. Such consolidation enables

THE CONGLOMERATION OF MICKEY MOUSE

The transformation of the Walt Disney Company from a struggling studio operating in the shadow of its related theme parks into a sprawling corporation provides one of the clearest examples of conglomeration. The first step was the creation of production units to develop a diversified slate of films. In 1983, combined domestic and foreign box office receipts for its motion pictures totaled $82.5 million. A decade later, the filmed entertainment division of Disney generated $3.67 billion in revenue. The diversification into related businesses was the next and most significant step. The biggest headlines came in 1996 with the acquisition of Capital Cities/ABC Inc. This created vertical integration between ABC and the production units within Disney, links that were most evident a decade later when three shows from Touchstone Television, *Lost, Desperate Housewives,* and *Grey's Anatomy,* fueled a resurgence of the network. That merger also included ESPN, which became the most lucrative unit in the Disney empire. In 2004, the diversified conglomerate generated over $30 billion in revenue, 20 times what it did in 1984. Two years later, it purchased Pixar Animation Studios, and in 2009 it bought Marvel enterprises, bringing the likes of Spiderman and the Fantastic Four under the Disney umbrella.

conglomerates to extend their control and maximize economies of scale through the use of shared resources. With vertical integration, firms acquire additional business units at different points in the process. This allows them to control the supply and cost of essential materials and enables them to rationalize production and increase their control over the market.

Using vertical and horizontal integration, media conglomerates gain far greater control over the marketplace, but such economic strategies limit market access for independent producers and distributors. This is most evident in the motion picture and television industries. Independent film distributors were prominent in the late 1980s, but a decade later the major conglomerates had swallowed most of these firms and large theater chains had overtaken small movie houses. By 1997, six corporations accounted for over 92 percent of box office revenue, and the blockbuster and the multiplex came to define the American moviegoing experience. The same pattern is evident with prime-time television. As networks exerted greater control over television production, fewer programs originated from outside of conglomerates focused on financial control and less-risky programs became appealing. Numerous versions of profitable formulas multiply in seemingly endless spin-offs, as the dearth of original, innovative television productions become more evident.

These practices extend to foreign markets as well, and the impact of Hollywood on indigenous production is a long-standing concern. The U.S. government promotes the export of media products across borders, and one of the justifications for the relaxation of ownership restrictions at home is the argument that the media conglomerates need

to be massive to succeed overseas. This contributes to a general mindset that firms that do not grow through mergers and acquisitions will be swallowed. Ted Turner's pursuit of both broadcast networks and motion picture studios before Turner Broadcasting became part of Time Warner in 1996 is testament to this way of thinking. Turner summarized the goal in simple terms: "The only way for media companies to survive is to own everything up and down the media chain.…Big media today wants to own the faucet, pipeline, water, and the reservoir. The rain clouds come next."

Changes in the Nature of Conglomeration

The change in the corporate control of the three major broadcast networks—ABC, CBS, and NBC—illustrates how conglomeration transformed media assets since the 1980s. In 1985, two of the networks were still linked to the individuals who created them—ABC and Leonard Goldenson and CBS and William Paley—while NBC remained in the hands of the corporation that launched its radio network in the 1920s, RCA. At that time, the networks remained the core businesses of their corporate parents, and the news divisions supported the public interest mandate that came with broadcast licenses. In 2005, all three shared ownership with a major motion picture studio—ABC and Walt Disney, CBS and Paramount Pictures, and NBC and Universal Pictures—and the news divisions were important revenue centers. (CBS and Paramount later became separate.) These combinations raise various concerns, not the least of which is the coverage of the conglomerates themselves. Michael Eisner once put it in simple terms: he did not want ABC News covering developments at Disney.

Not all combinations prove to be successful, and some argue that modern conglomerates are too unwieldy to react to changes in the marketplace. The most notable failure is the merger of America Online and Time Warner in 2001. The melding of old media and new media did not reap the promised rewards, and AOL was dropped from the corporate letterhead in 2003. But it was not just the size of Time Warner that was its undoing, as pundits point to various problems. And some changes are more cosmetic. In 2006, Viacom split its assets into two corporations, Viacom Inc. and CBS Corp., but Sumner Redstone remained in control of both of them, so ownership and control did not change hands. The rationale for the split was not the size of the conglomerate but the price of Viacom stock, with Redstone and others contending that the true value of the motion picture and cable television assets would be realized after the split from the slower-growing broadcast interests.

Conglomeration: Multiplicity or Diversity

When Ben Bagdikian published the first edition of *The Media Monopoly* in 1983, he estimated that ownership of most of the major media was consolidated in 50 national and multinational conglomerates. When he published *The New Media Monopoly* two decades later, Bagdikian concluded that the number had dwindled to just five. The degree

of conglomeration in media industries is evident across the board. In 1985, there were six major motion picture studios and three major broadcast television networks, and nine different conglomerates controlled one of each. In 2005, the number of broadcast networks had doubled with the addition of Fox, The WB, and UPN, but the number of corporations that owned a studio or network had dwindled to just six. Those corporations—Disney, NBC Universal, News Corp., Sony, Time Warner, and Viacom—also held an ownership interest in over 75 percent of the cable and satellite channels with over 60 million subscribers, as well as the most prominent premium movie channels, HBO and Showtime.

Therein rests an important battleground in this debate. Since the 1980s, Congress and the FCC relaxed ownership rules based on the argument that increases in outlets rendered such regulations needless interference in the marketplace. When the FCC announced the relaxation of various rules in 2003, chair Michael Powell argued that the "explosion of new media outlets" demanded change so the commission did not "perpetuate the graying rules of a bygone black and white era." There is little question that the number of outlets has increased. Less certain is whether this growth resulted in more independent voices and diverse viewpoints. The FCC under President Barack Obama has not made any significant departures from prior practice.

Central to this debate is the distinction between multiplicity and diversity, since it is possible to increase the number of available outlets without a parallel expansion in the range of ideas and values in the public commons. The rise of cable news services, for example, diluted the influence of the broadcast network news divisions and created the impression of abundance. This could be quite significant, since the dissemination of news and information from diverse and antagonistic sources is considered a pillar of self-government in democratic societies. When one traces the ownership and control of the cable news services, however, the promised excess is nowhere to be found. The five prominent cable news services—CNN, HLN (formerly CNN Headline News), CNBC, MSNBC, and Fox News Channel—are all part of major media conglomerates, as are the broadcast networks. These are far from diverse and antagonistic sources of news and information, although Fox has emerged as sympathetic to the conservative political viewpoint, and MSNBC has emerged as sympathetic to the liberal point of view. As a pair of opposites of sorts, the two organizations raise the question of objectivity in the news—or, to put it differently, of media bias. Thus does the debate on media conglomeration continue to rage and likely will do so in the foreseeable future.

See also **Intellectual Property Rights; Interest Groups and Lobbying**

Further Reading

Bagdikian, Ben, *The New Media Monopoly.* Boston: Beacon Press, 2004.

Chester, Jeff, *Digital Destiny: New Media and the Future of Democracy.* New York: New Press, 2007.

Croteau, David, and William Hoynes, *The Business of Media: Corporate Media and the Public Interest,* 2d ed. Thousand Oaks, CA: Pine Forge Press, 2006.

Herman, Edward S., and Noam Chomsky, *Manufacturing Consent: The Political Economy of the Mass Media.* New York: Pantheon Books, 1988.

Kellner, Douglas, *Television and the Crisis in Democracy.* Boulder, CO: Westview Press, 1990.

Kunz, William M., *Culture Conglomerates: Consolidation in the Motion Picture and Television Industries.* Boulder, CO: Rowman & Littlefield, 2007.

McChesney, Robert, *The Problem of the Media: U.S. Communication Politics in the Twenty-First Century.* New York: Monthly Review Press, 2004.

Turner, Ted, "Break Up This Band." *Washington Monthly* (July/August 2004): 33–44.

Wasko, Janet, *How Hollywood Works.* Thousand Oaks. CA: Sage, 2003.

CONSUMER CREDIT AND HOUSEHOLD DEBT

Robert D. Manning and Anita C. Butera

The use of consumer credit has become an increasingly important feature of the U.S. postindustrial economy in general and household financial management in particular. In fact, the recent economic boom of the mid-2000s was primarily fueled by consumer spending that was financed by soaring levels of household borrowing. Although the Great Recession of 2008–2010 has generated intense debate over indolent consumption financed by household debt, Lendol Calder (2001) sagely cautions that each generation has issued moralistic warnings against increasing dependence on consumer credit. And they have typically resonated during major economic downturns in the 19th and 20th centuries—most notably the Great Depression of the 1930s.

Background

Historically, the American debate over credit and debt has been shaped by Puritan sociocultural values that regulated appropriate moral behavior in the personal/social/household sphere (Manning 2000). The uniquely American response, as guided by the Weberian notion of the *geist* or "spirit of capitalism," reinforced household thrift in the social realm by rewarding self-discipline and hard work in the economic realm through reinvestment of household wealth in economic enterprises (Weber 1905). For example, Calvinism promoted material asceticism whereby hard work and frugality were valued over leisure and consumption. The ability to resist indolent material desires and thus demonstrate one's worthiness for salvation in the afterlife was confirmed through the accumulation of wealth. The more frugal the lifestyle and commitment to self-denial, then the more household assets that could be publically revealed as virtuous evidence of appropriate moral conduct. Indeed, Ben Franklin's moralistic prescription that "a penny saved is a penny earned" is firmly embedded in American culture as universal wisdom for

personal success. Ultimately, the Protestant work ethic has contributed to the emergence of a national American entrepreneurial culture that promotes "good" debt while increasing personal wealth and discourages "bad" debt that merely satisfies consumptive wants and desires.

The use and dependence on credit has varied over time. In rural agricultural areas, for example, farmers routinely rely on business and personal credit during the planting and growing seasons, which is then repaid with proceeds from the harvest. Social attitudes encouraged borrowing for costly equipment like a mechanical thresher or a multipurpose tractor because they were "good" debts: business investments that increased labor productivity and economic self-sufficiency. Similarly, buying a sewing machine on credit was viewed as a prudent investment since it reduced household expenditures on store-bought clothes and could generate supplemental income by taking in seamstress work. Even local merchants were relatively stingy with their self-financed "open book" credit. By cultivating consumer loyalty, they had to balance greater store sales that encouraged responsible consumption while limiting household debt to manageable risk levels for maintaining adequate store inventories. Hence, from the late 19th through the mid-20th century, banks prioritized the lending of relatively scarce credit to economically productive activities. In the process, this policy imposed greater social control over discretionary household expenditures and leisure activities as they were more closely regulated by the religious and community norms of the period.

Today, the responsible use of consumer credit is as important as the prudent management of household income. Although Americans have assumed much higher levels of debt to maintain their families, the social dichotomy of good versus bad debt still persists. For instance, a home mortgage is perceived as a good debt since it satisfies an important household need while accumulating a substantial future asset. Student loans are generally viewed as good human capital investments since higher education enhances occupational mobility and income growth. Of course, even good debt can lead to financial distress, such as when housing prices exceed family resources or costly terms of adjustable-rate mortgages greatly exceed the financial gains of home ownership. Accordingly, borrowing for expensive college or vocational training programs may be bad debt by consigning the borrower to many years of debt servitude. This may result from circumstances outside of the borrowers' control, such as deteriorating macroeconomic conditions (recession) or declining demand for specific occupational skills due to outsourcing (software engineers).

Bank Loans and Household Debt in Postwar United States

The post–World War II growth in household consumer debt has been shaped by supply—changing bank underwriting standards—and demand—higher material standard of living financed by easy access to consumer credit. In terms of the former, the national system of community banks was more risk averse in its loan approval process.

Traditionally, bank lending was based on the three Cs of consumer loan underwriting: character, collateral, and capacity. That is, the likelihood that the borrower would repay the loan (character), whether the borrower had sufficient assets to satisfy the loan in case of default (collateral), and whether the borrower possessed adequate income to repay the new loan based on existing household debts and expenses (capacity). These more stringent bank underwriting standards meant that loans were repaid over a shorter period of time (e.g., three-year auto loans), which accelerated the accumulation of household assets and collateral and thus reduced lender risk. Furthermore, loan applications were often rejected due to relatively high monthly payments and the inability to defer payments one to two years, as is common today. As a result, community banks enforced local standards of financial responsibility until they became absorbed by national banks during the merger and acquisition frenzy of the 1990s and 2000s.

Until the early 1980s, state usury laws restricted risk-based pricing policies, which offer high interest rate loans to less creditworthy consumers, while unsecured bank credit cards were not generally profitable and thus limited to higher-income/low-risk customers They were offered primarily as a convenience to the banks' best customers or to cement consumer loyalty with specific retailers through private issue cards such as Sears and Montgomery Ward (Manning 2000). In fact, consumer credit cards were barely profitable until after the 1981–1982 recession. Furthermore, the rapid growth of the U.S. manufacturing economy and its high levels of unionization in the 1950s and 1960s led to increasing real wages and expansion of the U.S. middle class, with high saving rates even in one-income households. For most Americans, household debt was limited primarily to low-cost mortgage (20- to 25-year fixed) and auto (one car) loans; higher education was affordable and generally self-financed. And interest payments on consumer loans were tax deductible until 1990. The 1986 Tax Reform Act featured a 4-year phased out period for deducting consumer loan finance charges, including credit cards and autos. A tax loophole that allowed home equity loans to retain their tax deductible status is responsible for their explosive growth in the 1990s and 2000s.

The consumer lending revolution took off after the 1981–1982 recession, as banking deregulation and international competitive pressures contributed to the profound transformation of U.S. society—from an industrial manufacturing to a postindustrial consumer economy. This enormous economic stress, which included the loss of millions of blue-collar manufacturing jobs, contributed to the sharp increase in demand for consumer credit among middle- and working-class families. This financial situation was exacerbated by the long-term decline in real wages beginning in the late 1970s. Furthermore, with high inflation in the late 1970s and early 1980s, peaking at over 15 percent annually, consumer borrowing became a prudent strategy as falling real wages were counterbalanced by the declining cost of borrowing. With the end of state usury laws and low inflation by 1984 (under 5 percent), the rising consumer demand and real cost of borrowing led to a dramatic shift in lending to less creditworthy households as

WHAT HAPPENED TO CONSUMER USURY LAWS?

In 1978, federal usury laws were essentially eliminated with the landmark U.S. Supreme Court decision *Marquette National Bank of Minneapolis v. First of Omaha Service Corp.* (439 U.S. 299). This ruling invalidated state antiusury laws that regulated consumer interest rates against nationally chartered banks that are headquartered in other states. Only the Office of the Comptroller of the Currency, through its enforcement of laws enacted by the U.S. Congress, can impose such restrictions on national banks. This resulted in the exodus of major banks to states without the restrictions, such as South Dakota and Delaware. The deregulation of interest rates was followed by the 1996 U.S. Supreme Court decision *Smiley v. Citibank* (517 U.S. 735), which effectively ended state limits on credit card penalty fees. Penalty and service fees now pervade the industry and are its third largest revenue stream following consumer interest and merchant fees. As a result, federal pre-emption has become the guiding principle of bank regulation and shifted authority from the individual states to the U.S. Congress.

With the extraordinary consolidation of the U.S. banking industry over the last three decades, the top three credit card companies (Citibank, Chase, Bank of America) control nearly two-thirds of the credit card market (Manning 2009),and state usury laws apply to a very small fraction of total consumer loans, primarily offered by state chartered banks and other nonbank financial institutions. The exception is federally chartered credit unions whose interest rates are capped at 18 percent. The result has been soaring finance rates and fees—even with the effective interest rate or cost of funds charged to major banks at near zero in 2010. Although more stringent federal credit card regulations were enacted with the 2010 CARD Act, efforts to mandate new federal interest rate limits were soundly defeated by the U.S. Congress in spring 2010.

strategically guided by risk-based pricing policies (Evans and Schmalensee 2005; Manning 2000; Nocera 1994).

As banks invested in new technological efficiencies, including automatic teller machines (ATMs) and credit card processing systems, they began pursuing greater profit opportunities by marketing to less-creditworthy groups (students, working poor, senior citizens, immigrants, handicapped) and then increasing household debt levels. Not surprisingly, by dramatically reducing loan underwriting standards, consumer lines of credit and household debt levels soared. For example, consumer credit card debt jumped from $70 billion in 1982 to nearly $960 billion in 2008, while the national household savings rate fell from nearly 10 percent to about–1 percent. By the mid-1990s, an extraordinary pattern emerged: U.S. bankruptcy filings nearly doubled while unemployment rates fell sharply. Between 1994 and 1998, consumer bankruptcies soared from 780,000 to 1.4 million (79.5 percent) while national unemployment dropped from 6 percent to about 4.2 percent (–30 percent). This pattern is shown in Figure 1. For the first time, the deregulated banking industry, with its diluted underwriting standards, had increased the

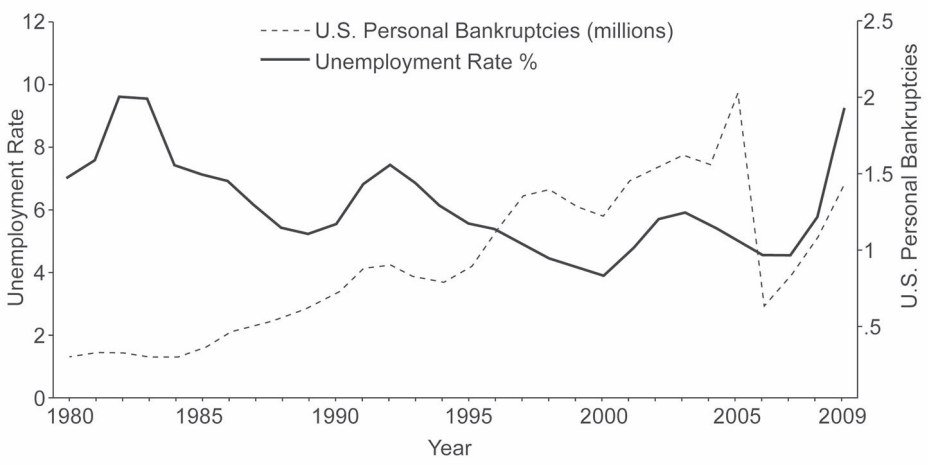


Figure 1. U.S. Personal Bankruptcy Filings and National Unemployment Rates, 1980–2009

amount and cost of household debt beyond the capacity of millions of families to repay their loans. The situation has been exacerbated by greater job insecurity, rising cost of housing, soaring health-related expenses, climbing cost of higher education, and low household saving rates. As a result, unexpected social and financial emergencies have pushed millions of responsible Americans over the edge of financial solvency (Manning 2000, 2005; Sullivan, Warren, and Westbrook 2000; Warren and Tyagi 2003).

Undeniably, the dependence of U.S. households on consumer credit and debt exploded over the last decade. For instance, between 1990 and 1999, total household debt increased from about $3.3 trillion to $6 trillion. As the U.S. Federal Reserve exercised its monetary policy power by sharply reducing the cost and increasing access to consumer credit, the U.S. economy surged, feasting on unprecedented levels of debt-based household consumption (Baker 2009; Zandi 2009; Fleckenstein and Sheehan 2008). From the onset of the 1999 recession to the peak of the bubble period in 2008, U.S. household debt jumped to over $12 trillion—an extraordinary increase of $6 trillion! More striking is the composition of this growth in debt. Americans were seduced to assume unprecedented levels of "good" mortgage debt—from $4.2 trillion in 1999 to almost $10.4 trillion in 2008. Similarly, credit card debt surged from $611 billion in 1999 to $958 billion in 2008 (U.S. Federal Reserve Board 2009). (See Figure 2.) Admittedly, over $400 billion in credit card debt and even more for other consumer purchases (autos, boats, all-terrain vehicles, vacations, college tuition) are included in these mortgage statistics due to the ease of refinancing during this period. Incredibly, the average U.S. household's indebtedness, as measured by its share of household disposable income, has jumped from 86 percent in 1989 to more than 140 percent today (Mischel, Bernstein, and Shierholz 2009).

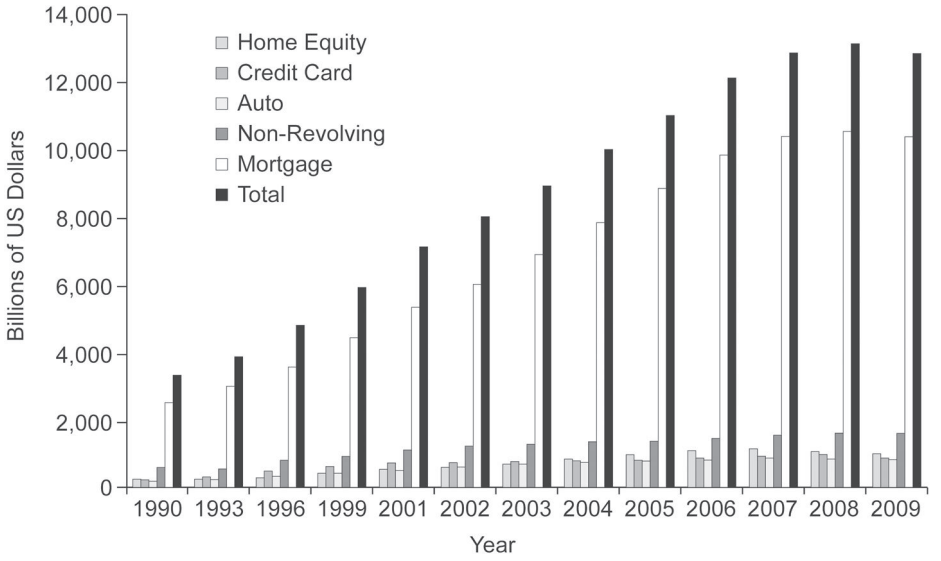


Figure 2. Household Consumer Debt by Category, 1990–2009 (nominal dollars)

The U.S. Economy on Steroids: How We Got Here

Unlike the past three business cycle recessions (1981–1982, 1990–1991, 2001), the ongoing 2008–2010 consumer-led recession is distinguished by unprecedented levels of household debt, declining family income, and sharply reduced household wealth (see Figure 3). Indeed, in the aftermath of these previous recessions, real household income increased significantly (18.5 percent)—from $41,724 in 1981 to $49,455 in 2001—whereas it declined slightly (–1.1 percent) to $48,931 in 2008. Similarly, housing prices rose during the last two recessions (5.6 percent in 1990–1991 and 6.3 percent in 2001), whereas they fell at least 12 percent in 2008 and over 10 percent in 2009.

Overall, U.S. economic recoveries during this 20-year period were largely financed by employment growth, increased real income, and increased household debt. Significantly, revolving (credit card) debt jumped much more rapidly than home mortgage debt during the 1980s and 1990s. For example, after adjusting for inflation, average revolving household debt jumped from $3,500 in 1981 to $6,700 in 1991 and then to $16,100 in 2001, while average mortgage debt jumped from $29,200 in 1981 to $42,500 in 1991 and then to $60,600 in 2001. With soaring housing prices, weakening loan underwriting standards, and easy home equity extraction, the U.S. housing bubble period (2001–2006) witnessed the dramatic growth of mortgage debt and plummeting home asset values; average home owner equity fell from 70 percent in 1980 to 38 percent in 2009. In real 2008 dollars, average household mortgage debt soared from $60,600 in 2001 to $94,500 in 2008, while revolving debt increased marginally over the same period, from $16,100 to $16,300. Between 2001 and 2006, it is estimated that over $350 billion in credit card debt was paid off through mortgage refinancings and home equity loans.

HAVE AMERICANS LEARNED A COSTLY LESSON ABOUT CONSUMER DEBT?

Since the 1981–1982 recession, outstanding revolving U.S. consumer debt (98 percent credit cards) jumped from about $70 billion to over $958 billion in 2008. By the spring of 2010, the year-long decline in household credit card debt led media pundits to declare that the U.S. spending binge was over and that Americans had learned a costly lesson from the easy credit period. That is, Americans were returning to their prudent spending patterns and paying down their costly consumer debt. Overall, credit card debt fell nearly $130 billion, from $958 billion at the end of 2008 to $830 billion in summer of 2010. Also, the household saving rate rose from about–1.0 percent in 2008 to over 4.5 percent in 2010.

The assertion that Americans are undergoing a profound behavior change in their spending patterns belies the economic reality of the current recession. Americans are concerned and cautious about their economic situation, but there is inadequate information to reach a definitive conclusion. With soaring bankruptcy rates (over 3.1 million in 2008–2009) and few home equity loan options, most of this decline in credit card debt is due to bankruptcy discharge and loan defaults rather than paying down consumer debt balances. In fact, over $100 billion in credit card debt was discharged through the U.S. bankruptcy courts in 2008 and 2009; over $75 billion is expected in 2010. Also, millions of Americans are in the process of home foreclosure. By not making housing payments, they are able to remit monthly payments on their credit cards and auto loans. Millions will default on these loans when they have to resume making housing payments over the next two to three years. Furthermore, sharply reduced credit lines have prevented millions of Americans from increasing their household expenditures and outstanding debt. Between 2007 and 2010, total outstanding lines of revolving credit plummeted from $5.5 trillion to $2.7 trillion. Of course, those with low levels of debt experienced the smallest reductions, while those with high levels of debt experience the greatest reductions. Hence, it is premature to conclude that Americans have fundamentally changed their attitudes toward credit and debt. If consumers continue their restrained borrowing preferences after banks relax their lending requirements, then there may be evidence to support a major change in Americans' attitudes toward credit and debt.

The U.S. economy experienced a precariously fragile yet incredibly robust economic expansion over 2001–2006 that was based on unsustainable access to global capital for financing consumer credit. Indeed, as the household consumer savings rate dropped from over 8 percent in the mid-1980s to near zero at the end of the 1990s, residential housing values soared to extraordinary heights; average housing prices slowly rose from about $45,000 in 1950 to $101,000 in 1990 and then soared to nearly $150,000 in 2000 before peaking at about $222,000 in 2006. The accelerated velocity of the real estate roller coaster ride is illustrated in Table 1. With more stringent underwriting standards,

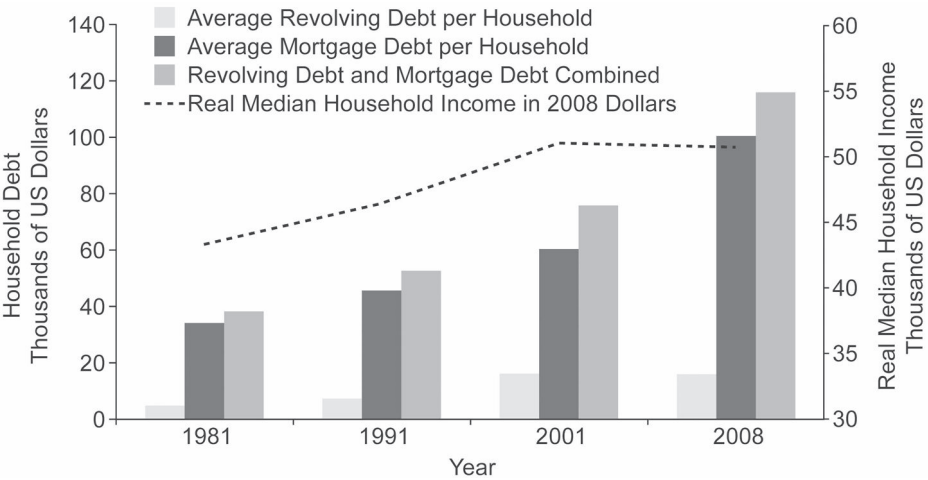


Figure 3. Average Household Debt versus Median Household Income in Current and Past Recessions (in 2008 Dollars)

TABLE 1. Median Sale Prices of Residential Houses

Year	National	Washington DC	New York City	Los Angeles
1940	30,600			
1950	44,600			
1960	58,600			
1970	65,300			
1980	93,400			
1990	101,100			
2000*	119,600	165,000	250,000	234,000
2005	219,000	425,800	445,200	529,000
2006	221,900	431,000	469,300	584,000
2007	219,000	430,800	469,700	589,200
2008	201,000	343,400	445,400	402,100
2009**	173,500	306,200	375,000	345,100

Source: National Association of Realtors, Quarterly Survey, http://www.realtor.org/research/research/metroprice; 1940–2000 data from U.S. Census Bureau Decennial Survey (in 2000 dollars), http://www.census.gov/hhes/www/housing/census/historic/values.html
*2000 metro house prices are estimated based on relevant periodical articles from that year.
**2009 prices are third quarter data.

including income verification and size of down payments, the average sales price of residential homes fell below the rate of inflation in the 1980s, rose from $93,400 to $101,100 in 1990, and then gained momentum with diluted lending standards in the 1990s, jumping nearly 50 percent to $149,600 in 2000.

It is the five-year bubble period (2001–2005) that witnesses the sharp upward acceleration in average sale prices—nearly 50 percent to $219,000 in 2005—followed by an abrupt stagnation in sale prices in 2006 (about 1 percent increase) and then a 22 percent decline over the next three years to $173,500. More striking is the regional variation in the U.S. real estate market. On the West Coast, average sales prices in Los Angeles soared from $234,000 in 2000 to $584,000 in 2006 and then plummeted to $345,000 in 2009. On the East Coast, average sales prices in New York City jumped from $250,000 in 2000 to $469,000 in 2006 and dropped to $375,000 in 2009. In the nation's capital, prices more than doubled in this five-year period, from $165,000 to $431,000, and then fell to $306,000 in 2009. Housing prices are expected to register further declines over the next three to four years, depending upon the level of public price support, willingness of lenders to write down mortgage principal to near market values, and job growth in specific regions of the country.

As federally subsidized general service entities (GSEs), the mortgage lenders Fannie Mae and Freddie Mac diluted their underwriting standards in order to expand their market share through the widespread packaging and resale of loans through asset-backed securities (controlling over $5 trillion of the $10 trillion residential mortgage market in 2008), U.S. home ownership rates reached a historic high of almost 69 percent in 2007. In the process, the sizzling U.S. housing market created an enormous increase in "paper" asset wealth for middle-class Americans that fueled the dramatic growth of unsecured lines of credit that underlies the second credit card bubble. The massive increase in United States consumer debt—from almost $8 trillion in 2001 to

SUBPRIME MORTGAGES AND U.S. FINANCIAL SYSTEM MELTDOWN

A distinguishing feature of the 2008–2010 recession is the central role of the U.S. housing market collapse. On the supply side, sharply diluted underwriting standards kept real estate prices soaring, which attracted a record number of speculative investors. Why invest in risky stock markets when you can make huge returns on borrowed money? To keep the real estate engine fully lubricated, it required new groups of home owners who were increasingly less creditworthy. The rise of subprime mortgages simply meant that borrowers could not qualify for traditional government-insured loans such as FHA mortgages.

In marketing the American dream of home ownership, real estate agents and brokers made bigger commissions by selling larger loans. The key was to qualify consumers for the home mortgage, which often included an inflated property appraisal, and then sell the loan via brokers to major Wall Street investment banking units. Surprisingly, a wide range of comparatively risky mortgage loans were created and approved by bank regulators that were impossible for millions of consumers to afford. These included 2/28 and 3/27 adjustable-rate mortgages that often started at 1–2 percent APR and jumped to

(*continued*)

(*continued*)

over 9–10 percent APR after the two- or three-year introductory period, five-year interest-only mortgages, "no doc" or unverified financial information loans, and pick-a-payment loans that permitted negative amortization. Of course, the inability to save for a down payment was not a major problem and even loan closing costs could be financed and added to the mortgage. So, while low-income and largely urban minorities became the first casualties of the subprime catastrophe, it was primarily due to their lack of financial resources and their acceptance of the worst borrowing terms rather than irresponsible money management. Middle- and upper-income households also took subprime mortgages, but they tended to have more financial resources and thus were able to prolong the foreclosure process through the late 2000s.

On the demand side, major Wall Street investment firms were buying, packaging, and reselling these subprime mortgages via asset-backed securities (ABS) that were sold to institutional investors (banks, insurance companies, mutual funds) throughout the United States and around the world. Major bond rating agencies like Moody's and Fitch were seduced by lucrative Wall Street consulting agreements and fueled the global sale of these securitized mortgages by certifying them as investment grade, which enabled the securities to be insured. Wall Street investment firms such as Goldman Sachs purchased billions of dollars of subprime mortgages, packaged and sold them as investment-grade securities, and then bought hedge insurance from companies like AIG (bailed out by the U.S. government with over $183 billion and counting) that essentially bet that the mortgages would not be paid—and they received billions in insurance payments. Other mortgage-backed securities were even riskier, featuring specific strips of the subprime mortgage. For example, the riskiest securities included the first 10 percent of the subprime mortgage, the next riskiest was the next 20 percent, with the least risky being the lowest strips.

As long as the housing bubble was inflating, the riskiest securities outperformed all other ABS products since the liquidation value of the homes at least satisfied the value of the mortgages. Why invest in 8 percent ABS products when the 15 percent ABS products appeared to be very low risk? Of course, when the housing bubble burst, the riskiest mortgage-backed securities immediately became worthless. As investors sought to mitigate their losses, they incentivized their mortgage servicers to accelerate foreclosure proceedings in the hope of recovering some economic value. This created a domino effect that exacerbated the fall in home sale prices and further increased their investment losses. In an attempt to stabilize the housing market, the U.S. Congress provided over $200 billion to home mortgage finance giants Fannie Mae and Freddie Mac to purchase delinquent mortgages. Together with government programs that offer lower interest rates but without principal reductions, the current housing market has reached a soft floor that will result in at least 4 million to 5 million foreclosures over the next three years. This means that the subprime mortgage catastrophe will continue, with the cost eventually exceeding a trillion dollars. It is for this reason that the U.S. Congress enacted more stringent regulations and oversight of Wall Street as specified in the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act.

nearly $13 trillion in 2008—was increasingly financed by foreign investors; the U.S. share of global savings peaked at nearly 65 percent in 2005 and had already fallen below 50 percent in 2008, as countries with balance-of-trade surpluses redirected their liquidity to national economic stimulus projects.

Furthermore, both consumer mortgage and credit card loans increasingly featured adjustable-rate terms in the 2000s that have stretched household debt capacity to its limits; monthly minimum payments continue to rise, whereas the value of household assets continues to fall. Today, with the virtual disappearance of home equity loans and the sharp cutback in bank card lines of credit, the collapse of the double financial bubble has left most U.S. households maxed out on their credit, with debt levels that they cannot possibly repay in full given the current trends of declining household income and wealth. Additionally, the rising debt service of U.S. households has dramatically reduced consumer discretionary spending. This rippled throughout the United States and global economies in 2008 and 2009. In the process, it triggered sharp reductions in macroeconomic growth and rising unemployment rates (combined unemployed and underemployed at nearly 25 percent in the United States) that are the primary forces shaping the ongoing consumer-led recession in the United States. As a result, with over 2.3 million foreclosures in 2008, millions of Americans are confronting the stark reality that they may lose their homes and even their jobs in the early 2010s. An estimated 5 to 7 million homes are expected to enter into foreclosure proceedings over the next three years.

Conclusion: After the Double Financial Bubble

Like an athlete on steroids, the U.S. economy was not nearly as powerful as it seemed in the mid-2000s as it bulked up on cheap financial "boosters" from major trade partners such as China, Japan, and Middle East oil producers. With their enormous trade surpluses with the United States, which underlies their huge dollar-denominated currency reserves, these "bankers of necessity" were happy to supply low-cost loan "fixes" as long as it kept the U.S. consumer society addicted to its massive volume of imported goods and services (Baker 2009; Fleckenstein and Sheehan 2008; Schechter 2007). For example, China purchased the mortgage-backed securities that fueled the housing boom in order to provide compliant U.S. consumers with building materials (e.g., cheap sheetrock), interior furnishings, electronics and appliances, and clothing and other personal items. As long as inexpensive credit was easily available in the United States, then Americans were able to refinance and leverage their skyrocketing home values through ever lower interest rates (Muolo and Padilla 2010; Zandi 2009; Schechter 2008). This meant that while real U.S. wages continued to decline in the 2000s, Americans believed that they actually were better off economically due to impressive stock market (401(k))

and home equity gains (Mishel, Bernstein, and Shierholz 2009; Leicht and Fitzgerald 2007; Manning 2005).

As the financial steroids began to wear off, the U.S. financial system abruptly collapsed in September 2008, and the resulting institutional paralysis left the nation in shock and the economy in turmoil (Zandi 2009; Baker 2009; Schechter 2008). Like the poststeroids athlete, the United States is struggling to recover its former glory while its economic foundation and financial infrastructure remain perilously debilitated. Furthermore, after the bubble burst, overleveraged households now must pay down their record consumer debts almost exclusively from salaries and wages that continue to fall while millions of Americans are unable to find gainful employment. No wonder that record bankruptcy rates are expected over the next three to four years. With the lack of available credit, moreover, the pendulum of the market has swung in the opposite direction as asset sale prices do not necessarily reflect intrinsic value since fewer people can qualify for loans. Shockingly, commercial and residential real estate is often sold at below its replacement cost—that is, homes and office buildings can be purchased for less than it costs to build them! Together with the glut of houses on the market, these are the key reasons that the construction and real estate industries will not recover in the near term. And, since it is unlikely that real household income will reverse its long-term slide in the near future, the timing of the next upswing in the residential real estate market is crucial to restoring consumer confidence as well as augmenting shrinking family incomes. These factors both underlie the depth of the current recession and the policy prescriptions for restoring the health of the U.S. economy.

See also **Bank Bailouts; Debt, Deficits, and the Economy; Financial Regulation; Trade Deficits (and Surpluses)**

Further Reading

Baker, Dean, *Plunder and Blunder: The Rise and Fall of the Bubble Economy.* New York: Polipoint Press, 2009.

Barber, Benjamin R., *Consumed: How Markets Corrupt Children, Infantilize Adults, and Swallow Citizens Whole.* New York: W. W. Norton, 2007.

Calder, Lendol, *Financing the American Dream: A Cultural History of Consumer Credit.* Princeton, NJ: Princeton University Press, 2001.

Cohen, Lizabeth, *A Consumers' Republic: The Politics of Mass Consumption in Postwar America.* New York: Vintage, 2004.

Evans, David, and Richard Schmalensee, *Paying with Plastic: The Digital Revolution in Buying and Borrowing,* 2d ed. Cambridge, MA: MIT Press, 2005.

Fleckenstein, William, and Frederick Sheehan, *Greenspan's Bubbles: The Age of Ignorance at the Federal Reserve.* New York: McGraw-Hill, 2008.

Leicht, Kevin T., and Scott Fitzgerald, *Post-Industrial Peasants: The Illusion of Middle Class Prosperity.* New York: Worth, 2007.

Mann, Ronald J., *Charging Ahead: The Growth and Regulation of Payment Card Markets around the World.* New York: Cambridge University Press, 2007.

Manning, Robert D., *Credit Card Nation: America's Dangerous Addiction to Credit.* New York: Basic Books, 2000.

Manning, Robert D., *Living with Debt: A Life Stage Analysis of Changing Attitudes and Behaviors.* Charlotte, NC: Lending Tree.com, 2005.

Manning, Robert D., "The Evolution of Credit Cards." *Credit Union Magazine* (October 2009): 35–38.

Mishel, Lawrence, Jared Bernstein, and Heidi Shierholz, *State of Working America, 2008/2009.* Ithaca, NY: Cornell University Press, 2009.

Muolo, Paul, and Mathew Padilla, *Chain of Blame: How Wall Street Caused the Mortgage and Credit Crisis.* New York: John Wiley, 2010.

Nocera, Joseph, *A Piece of the Action: When the Middle-Class Joined the Money Class.* New York: Simon & Schuster, 1994.

PEW Health Group, *Still Waiting: Unfair or Deceptive Credit Card Practices Continue as Americans Wait for New Reforms to Take Effect.* Washington, DC: Pew Charitable Trusts, 2009.

Schechter, Danny, *In Debt We Trust: America before the Bubble Burst.* Film. DisInformation Films, 2007. http://www.Indebtwetrust.org

Schechter, Danny, *Plunder: Investigating Our Economic Calamity and the Subprime Scandal.* New York: Cosimo Books, 2008.

Sullivan, Teresa A., Elizabeth Warren, and Jay L. Westbrook, *The Fragile Middle Class: Americans in Debt.* New Haven, CT: Yale University Press, 2000.

U.S. Federal Reserve Board, Consumer Credit and Household Debt Statistical Releases. 2009. http://www.creditcardnation.com/trends.html

Warren, Elizabeth, and Amelia Warren Tyagi, *The Two-Income Trap: Why Middle-Class Parents Are Going Broke.* New York: Basic Books, 2003.

Weber, Max, *The Protestant Ethic and the Sprit of Capitalism.* London: Unwin Hyman, 1905.

Zandi, Mark, *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis.* Upper Saddle River, NJ: FT Press, 2009.

CORPORATE GOVERNANCE

Ashutosh Deshmukh

Corporate governance refers to the way a corporation is managed, administered, and controlled by the various stakeholders. The stakeholders such as the shareholders, boards of directors, and managers run the corporation and shape and execute the strategies and day-to-day operations. The other stakeholders such as employees, customers, suppliers, regulators, and society at large are also interested in proper management of the corporation. The objectives of good corporate governance include economic efficiency and maximization of shareholder value and may include other goals as assigned by the regulators and the society.

The term *corporate governance* appeared in 1981, and the topic has become a subject of intense research, especially in the last decade. However, even with such a focus, no single definition of corporate governance suffices to serve the purposes of all stakeholders. Corporate governance has been in part defined by various regulations and in part by the human element involved in operationalizing the term. In order to achieve the objectives of good corporate governance the shareholders, boards of directors, and managers need to be honest, trustworthy, and respectful of the letter and spirit of the law. Sometimes demands of the various stakeholders can conflict, giving rise to complex and thorny ethical dilemmas. Thus, the topic is of interest to all of us.

Why Corporate Governance Is Important

To understand the importance of corporate governance, we must first understand the nature of a corporation and the far-reaching influence wielded by today's corporations. The corporate form for conducting business has gained international popularity. Why? The simple reason is that a corporate form of business offers *limited liability* to the owners of a corporation. For example, if the owners put $100 in the corporation (buy shares) and the corporation goes bankrupt, then the owners lose only $100. However, if the business is run as a sole proprietorship (single owner) or as a partnership, then the owner(s) can be responsible for all debts incurred by the company and may even lose personal assets such as a house or car. This legal protection offered by the limited liability concept results in risk taking and innovation. Today's corporations are owned by thousands of investors who pool their money and delegate the running of the company to professional managers. The people invest and the managers manage, and, if both are successful, everyone reaps the rewards. Some legal scholars have put the idea of corporate form at par with industrialization as a force that helped drive the explosive growth of business and commerce.

However, because owners generally have no direct hand in running a corporation, there is a possibility of mismanagement by the managers; in other words, bad corporate governance can ruin the investors. This is often referred to as an agency problem. What is to stop the managers (agents) from running the company for their own benefit (to the detriment of owners)? This question becomes even more urgent if we scrutinize today's global corporation. Presently, in the United States and across the world, the economic landscape is dominated by global corporations; many of them rival governments in terms of their budgets and power. Any major mistake by the mangers of such a corporation can affect the economies of nations as well as the lives of the common people. The world faced a major economic crisis in 2008–2009 when U.S. banking and investment firms used faulty models in measuring risks in the housing market. As this article is being written, the ecosystem of the Gulf of Mexico is being threatened because of mishaps with offshore oil drilling. The livelihoods of millions of people are at stake.

TABLE 1. History of Legislation to Prevent Corporate Mismanagement and Fraud

Legislation	Reason
Owens-Glass Act of 1913: This act provides rules for financial reporting and reserve requirements for banks.	This act was enacted due to bank failures caused by inadequate or nonexistent reserves.
Glass-Stegall Act of 1933: This act separated commercial and investment banking.	There was a conflict of interest in banks that conducted commercial and investment operations, which resulted in massive banking frauds.
Securities Act of 1933: This act requires disclosure of all important information before securities (shares) are registered.	Shares were issued by many corporations that provided false and misleading information to the public.
Securities Exchange Act of 1934: This act requires that all companies listed on stock exchanges file quarterly and annual audit reports with the Securities and Exchange Commission.	Many corporations issued unaudited fraudulent financial reports and manipulated their stock price for the benefit of the top management.
Investment Company Act of 1940: This act established financial responsibilities for directors and trustees of investment companies (the companies that invest in stock markets). It also made disclosure of financial and managerial structure mandatory.	Investment companies abused the funds provided by the investors by investing in related companies and manipulating prices.
Foreign Corrupt Practices Act of 1977: This act made proper design, maintenance, and documentation of internal control systems a requirement for U.S. companies.	U.S. corporations were bribing foreign officials for business and also made banned political contributions in the United States.
FIDCA Improvement Act of 1991: This act mandated reports by the managers on internal controls and also compliance with the federal laws.	There was a massive failure of savings and loan institutions due to fraud and conflict of interest among officers and directors.
Private Securities Litigation Reform Act of 1995: This act requires auditors and lawyers to inform the Securities and Exchange Commission of any allegations of wrongdoing (including financial wrongdoing) by the corporation.	This act is intended to prevent frivolous litigation against public companies.
Sarbanes-Oxley Act of 2002: This act strengthens various aspects of corporate governance.	This act was prompted by a series of corporate frauds and failures that involved blue-chip companies in the United States.

(*continued*)

TABLE 1. (*continued*)

Legislation	Reason
Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010: This legislation is aimed primarily at the banking and investment industry; it seeks to make trading in derivatives and other securities more transparent and protect consumers from corporate fraud and mismanagement.	This legislation came in the wake of the 2008–2009 recession, which was caused in part by high-risk and often faulty investment products—primarily mortgage-backed securities—sold by Wall Street firms.

Mechanisms of Corporate Governance

The corporate form of business has been abused by managers many times, and a host of laws have been passed as a result. In the United States, each corporation must follow state incorporation laws in forming, running, and dissolving a corporation. Such laws stipulate basic governance structures to protect the interests of the shareholders. Additionally, many other laws have been instituted over the years to foster proper management of corporations. The history of these laws, passed long before corporate governance became a major topic of interest, were designed to prevent mismanagement and fraud by the managers. They can make fascinating reading. The stock market crash of 1929 was partly caused by management fraud or lax corporate governance. Consequently, Congress passed the Securities Act of 1933 and the Securities Exchange Act of 1934. This history repeated itself in 2002, when a host of blue-chip companies that had been certified by their auditors and endorsed by Wall Street were exposed as giant frauds, causing bankruptcies. As a result, the Sarbanes-Oxley Act of 2002 was passed. These laws have directly or indirectly attempted to bolster good corporate governance.

The commonly accepted mechanisms of corporate governance are as follows:

1. **Board of directors:** The directors are elected by the shareholders to protect the interests of the shareholders. The directors meet regularly in board meetings and have the power to appoint, remove, and fix the compensation of the top executives. The independent and outside directors are invaluable in monitoring the top management and assessing progress of the corporation.
2. **Checks and balances:** The power inside the company is carefully distributed across various positions. For example, the chief financial officer (CFO) is responsible for preparing the financial results of the corporation, the chief information officer is responsible for information technology infrastructure, and the chief executive officer (CEO) provides overall leadership to the company. Such separation of powers is carried down to the lowest levels of the corporation. There is also a carefully designed system of internal controls to ensure reliable financial reporting, increase operating efficiency, and maintain

proper compliance with laws and regulations. Such arrangements prevent one person from committing fraud or damaging the corporation through errors of judgment.

3. **External auditors:** Every public corporation is legally obligated to get its financial accounts audited by external auditors. The external auditors have professional responsibilities and are not under the control of top management or the board of directors.
4. **Executive compensation:** The board of directors designs the compensation for the top management in such a way that the interests of the top management and those of shareholders will be the same. Thus, top managers' actions, even though arising from the profit motive, will benefit the shareholders. Good compensation schemes, however, are notoriously difficult to design and often result in unintended consequences.

There are also external forces at work—such as employees, media, financial analysts, and creditors—all of whom may demand good governance and financial transparency. Governmental regulations, as noted above, likewise play a vital role in promoting good corporate governance.

Why Mechanisms of Corporate Governance Fail

The myriad mechanisms of corporate governance are not always enough. Human ingenuity, greed, systemic failure of the markets, and new business innovations can outstrip carefully designed controls. Moreover, accountants who deliver financial reports play a significant role in corporate governance. The performance of top management and of the corporation as a whole is measured by such financial reports. The financial reporting rules in the United States (and in the rest of the world) are flexible and can be interpreted in a variety of ways. These rules can be manipulated—by means of legal stratagems (loopholes) or even by illegal and unethical means—and cause lasting damage to the corporation.

Let us look at a few reasons for the failure of available control mechanisms. First, top management can collude and operate over and above the internal controls of the corporation for management's own profit. Such unethical behavior generally results in fraudulent financial reporting involving manipulating the accounting data used by the company. Often the external auditors of the company are either complicit in the fraud or choose to ignore it. Eventually, the fraud comes to light and frequently the company goes bankrupt. Second, top management can take excessive risks in the business. Since the bulk of the capital is provided by shareholders, top managers can take risks that they would not otherwise take if their own money were involved. For example, the economic crisis that affected the United States and the rest of the world in 2008–2009 partly resulted from financial instruments that hid the risk of lending money to people who did

not have the ability to pay it back. Such risks ended up enriching a handful of managers and corporations but caused trillions of dollars in losses to the nation's economy. Third, a large corporation can have thousands of shareholders, and most of the shareholders have little time or inclination to study financial reports, attend shareholder meetings, or take an active part in corporate governance. Finally, the top managers control information about the company. Even a vigilant board of directors and a strong body of external auditors can be misled by top managers, if the latter desire to do so.

As a result of these factors, we see in the United States and elsewhere periodic scandals and great swings and crashes in the stock market. In extreme cases, recessions set in, dragging down the national economy. The popular outrage that accompanies such events often forces governments to introduce further regulations. As of this writing (mid-2010), lawmakers in Congress and members of the Obama administration are crafting legislation designed to bolster the nation's financial regulations. It is expected, however, that the new regulations will complement rather than undo or rewrite the Sarbanes-Oxley Act, which remains the most far-reaching law on the books regarding corporate governance.

The Sarbanes-Oxley Act

In 2000, as the stock market nose-dived and the Internet bubble burst, there was a general discontent among the investors regarding corporate governance. The following year saw a succession of corporate scandals that shocked the public. The biggest fraud involved a company called Enron. This company, based in Houston, Texas, dealt in electricity, natural gas, paper, and communications and claimed revenues of approximately $100 billion. At the time, the company employed approximately 20,000 people and was considered one of the most innovative companies in the nation. The performance of Enron was revealed to be a fraud, however—sustained by accounting gimmicks and not business fundamentals. The company went bankrupt in 2001, and investors and employees sustained billions of dollars in losses. Enron's external auditor, Arthur Andersen, a leading accounting firm, also went bankrupt. Other similar scandals involving such companies as WorldCom, Tyco, and Adelphia further fueled public outrage.

Because of Enron and other scandals, Congress took steps that resulted in the Sarbanes-Oxley Act. The act is named after its sponsors, Senator Paul Sarbanes (D-MD) and Representative Michael Oxley (R-OH), and was overwhelmingly approved by both congressional houses. This act contains 11 titles (sections) that deal with various aspects of corporate governance. These include, for example, the responsibilities of the managers, the independence of the auditors, and requirements for financial disclosure. The act also shifted responsibility for setting auditing rules and standards from the private sector (the American Institute of Certified Public Accountants) to the public sector (Public Company Accounting Oversight Board). The major provisions of the act that affect corporate governance are summarized below.

TABLE 2. Time Line for Sarbanes-Oxley Act of 2002

Time	Event
2000	The stock market begins to cool off.
2001	Enron scandal comes to light; billions of dollars of market value vanish.
2002	Many well-known corporations such as AOL, Adelphia, Global Crossing, Kmart, Lucent Technologies, Merck, Tyco International, and Waste Management are found to be culpable of committing fraud.
June 15, 2002	Arthur Andersen, the Enron auditing firm, is indicted and criminally convicted.
July 9, 2002	President George Bush gives a speech about accounting scandals.
July 21, 2002	WorldCom files for bankruptcy—the largest corporate bankruptcy ever; a major financial fraud underlies the demise of the company.
July 30, 2002	The Sarbanes-Oxley Act is passed.

Responsibilities of the Board of Directors

As mentioned earlier, shareholders appoint the members of the board of directors. The board is supposed to protect the interests of the shareholders. In the real world, the CEO often chooses board members from among friends and acquaintances, to the detriment of shareholders' interests. In an attempt to remedy this cronyism, Sarbanes-Oxley contains provisions to strengthen the independence of the members of the board of directors from management. The act mandates that the audit committee (a committee of directors that deals with financial matters) of the board of directors should have people who do not serve (and get money from) the company in any other capacity and should not work for a subsidiary of the company. The audit committee also needs to keep track of complaints received regarding financial improprieties and problems with the internal controls. If necessary, the audit committee can hire independent counsel to investigate critical matters.

Responsibilities of the Managers

Sarbanes-Oxley imposed a number of key responsibilities, obligations, and prohibitions on senior management, including certification of the accuracy of financial reports, creation of the internal control reports, and restrictions on personal loans and stock sales. The act also stipulates heavier penalties for criminal behavior.

Public corporations are required to issue an annual report containing financial statements, management discussion of operating results, and the auditor's report.

TABLE 3. Section 404: A Four-Letter Word?

(a) Rules Required	The Commission shall prescribe rules requiring each annual report required by section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) to contain an internal control report, which shall— (1) State the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting; and (2) Contain an assessment, as of the end of the most recent fiscal year of the issuer, or the effectiveness of the internal control structure and procedures of the issuer for financial reporting.
(b) Internal Control Evaluation and Reporting	With respect to the internal control assessment required by subsection (a), each registered public accounting firm that prepares or issues the audit report for the issuer shall attest to, and report on, the assessment made by the management of the issuer. An attestation made under this subsection shall be made in accordance with standards for attestation engagements issued or adopted by the Board. Any such attestation shall not be the subject of a separate engagement.

Source: Institute of Internal Auditors, "Sarbanes-Oxley Section 404: A Guide for Managers." Altamonte Springs, FL: Institute of Internal Auditors, 2008.

Sarbanes-Oxley now requires the CEO and the CFO to certify that the financial reports accurately reflect the company's real performance. In the past, top executives accused of fraud often pleaded ignorance of accounting matters and tried to shift the blame onto accountants. This certification closes such loopholes.

The managers are also required to issue an internal control report with each annual report (Section 404). The internal control report states that establishing and maintaining internal controls is the responsibility of the management. It also assesses the existing internal control system strengths and weaknesses. The external auditors then attest to the veracity of that report. The auditors cannot check every transaction in the company since modern corporations have trillions of transactions; rather, they rely on internal controls to evaluate the financial position of the company. If the top management is negligent in establishing and enforcing internal controls, audits are ineffective. The internal controls report, as it is issued by top management, compels management to pay attention to internal controls. Section 404 is the most contentious aspect of the Sarbanes-Oxley Act because of its requirement to implement, document, and test internal controls—a procedure that can be very expensive, especially in larger organizations.

Sarbanes-Oxley also bans corporations from offering personal loans to their executive officers and directors. For example, former WorldCom CEO, Bernard Ebbers, received an approximately $300 million personal loan from the company. Many such

instances of personal loans came to light in 2001–2002. Sarbanes-Oxley put an end to that practice.

Many top managers are granted stock options or stock in the company. Since top managers have better information about the company than the average member of the public, they can time the sale of stock to reap maximum profits. Sarbanes-Oxley does not ban this kind of insider trading (except under certain conditions), but it does require that such sales be reported quickly for the benefit of all investors. Compensation for CEOs and CFOs is similarly required to be disclosed publicly. Such disclosure had been required prior to Sarbanes-Oxley, but now the information is easier to find and more transparent. Additionally, top managers are required to return any bonuses awarded for financial performance that later were found to be based on faulty accounting.

Criminal and civil penalties for violation of securities laws and misstatement of financial data are made more severe under the law. In the past, laws dealing with financial fraud were rather lenient and courts tended to award light sentences. Sarbanes-Oxley provides long jail sentences and stiff fines for any managers who knowingly and willfully misstate financial data.

Responsibilities of the Auditors

The auditors are expected to be independent from their clients. In the past, auditing contracts were awarded on the basis of friendships and business relationships, which compromised the auditor's independence. Independence is the cornerstone of any effective audit, and Sarbanes-Oxley contains many provisions to strengthen the auditor's independence.

Auditors are banned from providing other fee-based services that could lead to a conflict of interest and undermine their independence. Before Sarbanes-Oxley, auditors were allowed to provide certain consulting services such as advice for hiring personnel, internal auditing, and designing financial information systems. Sarbanes-Oxley provides a long list of services that can no longer be performed by auditors. Such a ban is designed to prevent business relationships between the auditor and the client. It is believed that these other, possibly more profitable, contracts compromise auditors' independence and undermine their willingness to adhere strictly to auditing standards.

The act contains other provisions to preserve independence of the auditor. The audit partner supervising the audit should be rotated every five years, which is meant to encourage professional (as opposed to personal) relationships between the partner and top management. Furthermore, a person employed by an audit firm is barred from assuming a top managerial position with the client company for at least one year after leaving the auditing firm. This provision prevents what used to be called a revolving door between the audit firm and the client. Finally, the newly established Public Company Accounting Oversight Board has the power to investigate auditing firms and penalize them for noncompliance with the law.

Responsibilities of the Securities and Exchange Commission (SEC)

The SEC is a federal agency whose duties include administration of the Sarbanes-Oxley Act. The SEC has been granted additional powers and an expanded budget to supervise compliance with the act. The SEC can:

1. Set standards of professional conduct for lawyers who practice before the SEC,
2. Prohibit a person from serving as a director or an officer of a public company, and
3. Freeze payments to officers or managers of the company if it suspects that securities laws have been violated.

These provisions in Sarbanes-Oxley seem to be straightforward and appropriate for proper corporate conduct. However, the enactment and implementation of the provisions have raised a host of ethical and operational questions.

Consequences of Sarbanes-Oxley

The Sarbanes-Oxley Act raised a firestorm of controversy upon its passage, and certain of its aspects continue to be debated. The objections against the act are philosophical and operational in nature. Romano (2005) raises a compelling philosophical argument against Sarbanes-Oxley. Romano argues that Sarbanes-Oxley demands substantive corporate governance mandates. This means that the act specifies how a business should be conducted and is thus intrusive in nature. The earlier laws required complete disclosure of all information but not directives on how to conduct business. The author argues, after evaluating the academic literature, that such a far-reaching law is not required. Gifford and Howe (2004) argue that such government mandates are detrimental to business because they do not allow more efficient and effective private-sector solutions to bubble up. Similarly, the operational objections against Sarbanes-Oxley refer to excessive compliance costs, the possibility of outsourcing and offshoring accounting jobs, smaller public companies going private to avoid the rigors of Section 404, foreign companies delisting themselves from the U.S. stock exchanges, and the costs of new accounting infrastructure, among other issues.

Much research has taken place regarding the costs and benefits of Sarbanes-Oxley over the last few years. The results, though not conclusive, provide us with some understanding of the consequences of the Sarbanes-Oxley Act. The research is ongoing and has not resolved issues conclusively. The results are summarized below.

Costs

The philosophical issues surrounding the passage show no sign of abating. Romano (2009) argues that Sarbanes-Oxley remains a hurried piece of legislation, a response

to a financial crisis. The legislation is flawed and will continue to cause problems for businesses. Butler and Ribstein (2006) suggest that individual investors are better off diversifying their investments. The Sarbanes-Oxley Act, however, imposes costs on all companies, depressing earnings and stock prices for the entire market. The specific findings of various studies are as follows:

1. Compliance costs (costs related to Section 404) have increased due to the passage of Sarbanes-Oxley Act. These costs include direct costs such as training of employees, time spent by executives in dealing with compliance, and purchasing of hardware and software as well as indirect costs such as loss in productivity due to resources being diverted to comply with the Sarbanes-Oxley Act. The SEC's Advisory Committee estimated that the costs for compliance ranged from 0.06 percent of revenues for companies with revenues greater than $5 billion to 2.6 percent for companies having revenues of less than $100 million. There are many other, varying estimates of costs.
2. Costs increased rapidly immediately after the act was passed. Compliance costs began to rise slowly and then showed some decline as companies became more skilled in complying with the act and also made the needed infrastructure investments.
3. Audit costs initially increased rapidly, but, as time has gone by, auditors have become more efficient and audit fees have remained flat or decreased slightly.
4. There is some evidence that some public companies have gone private to avoid complying with Sarbanes-Oxley. Moreover, some private companies have decided not to go public for the same reason.
5. The market value of smaller public firms has been negatively affected by the act. However, the SEC is providing additional guidance and time to help the smaller firms.
6. The insurance premiums for directors serving on the board have gone up. The composition of the directors is now more tilted toward lawyers, financial experts, and retired (as opposed to current) executives. Director pay and total costs have significantly increased.

Benefits

The benefits of compliance, as compared to the costs, are somewhat more diffuse, long term, and harder to quantify. Michael Oxley, for example, asks: "How can you measure the value of knowing that company books are sounder than they were before?" He adds that these costs are really investments for the future. Moody's, a credit rating firm, believes that companies are strengthening their accounting controls and investing in infrastructure required to support quality financial reporting. Bradford, Taylor, and

Brazel (2010) argue that compliance with the act has helped corporations to achieve strategic goals and analyze performance more effectively and efficiently. The specific findings of various studies can be summarized as follows:

1. Some experts believe that the act has helped restore investor confidence in the integrity of financial statements. Some empirical research suggests that Section 404 may reduce the opportunity for intentional or unintentional accounting errors and improve the quality of reported earnings.
2. Section 404 reports allow the investors to assess risks more accurately and can affect the firm's cost of equity. Companies that improve their controls lower their borrowing costs.
3. A survey carried out by the Institute of Management Accountants indicated that both public and nonpublic companies have improved processes, expanded employee job responsibilities, eliminated duplicate activities, and automated manual controls due to compliance with the act. Interestingly, nonpublic companies reaped more benefits due to the compliance.
4. Compliance with the act may help companies in getting dismissals, a favorable result, in securities fraud class-action cases.
5. The boards of directors, especially the audit committees, are far more independent and responsive to shareholders than they were in the pre–Sarbanes-Oxley era.
6. A paper issued by the Institute of Internal Auditors (Rittenberg and Miller 2005) suggests that internal controls in corporations have improved and their financial statements are viewed as more reliable.

The Economic Crisis of 2008–2009

Sarbanes-Oxley is the latest salvo in an ongoing war against poor corporate governance, mismanagement, and fraud. The act required that many aspects of corporate governance, which were earlier left to management's discretion, conform to the new legal mandates. Many powerful forces—for example, global corporations, top managers, big accounting firms, politicians, and lobbyists—bring forward complaints whenever new accounting rules and regulations are set. These groups have competing agendas and motives, which, moreover, do not necessarily coincide with the public interest. Occasionally, however, momentous events, such as a series of corporate frauds and bankruptcies, converge to create the need for sweeping legislation.

The economic crisis of 2008–2009 has, in many respects, overshadowed the Sarbanes-Oxley debate. This latest crisis is similar to but worse than the one seen in 2001–2002. The losses due to speculation in mortgage-backed securities can be measured in the trillions of dollars, and the human costs in terms of jobs, savings, pensions, state and local governments, and so on are greater still. The crisis presents a host of new legal, ethical,

and regulatory issues. Yet many of the provisions of Sarbanes-Oxley, such as requiring due diligence, preventing conflict of interest, and adhering to basic fiduciary responsibilities, remain relevant to the current situation. Thus, the chances that Sarbanes-Oxley will be rolled back seem remote. As noted, the Obama administration has given strong signals that additional legislation is on the way.

It is clear that the new regulations are aimed primarily at the financial and banking industry. The draft of the act proposes reforms to meet five key objectives (Department of the Treasury n.d.):

1. Promote robust supervision and regulation of financial firms,
2. Establish comprehensive supervision and regulation of the financial markets,
3. Protect consumers and investors from financial abuse,
4. Improve tools for managing financial crisis, and
5. Raise international regulatory standards and improve international cooperation.

To achieve these objectives, various measures have been proposed—for example, creation of a Financial Services Oversight Council, granting additional powers to the Federal Reserve, establishing a national bank supervisor, enhancing regulation of the securities market and derivatives (which lay at the heart of the problem), and implementing higher standards for the providers of consumer financial products. There is discussion, too, of not relying on corporate disclosure but rather providing mandates on running and managing a business. The ensuing legislation will likely share many features with Sarbanes-Oxley and will likely cause considerable controversy and debate.

Conclusion

The cycle of corporate wrongdoing and government regulation goes on. As people increasingly look to the stock market for investments and put their hard-earned savings in the market, it becomes ever more imperative that these markets remain transparent, properly regulated, and compliant with the rules of the game. Regulations such as Sarbanes-Oxley or the most recent financial regulatory reform bill have, of course, both advantages and disadvantages. There are ideological and philosophical issues that need to be drawn out, defined, and discussed. Even when enacted, it is difficult to properly evaluate these regulations or perform straightforward cost/benefit analyses. Thus it seems that the perpetual chase between the law and the outlaws will continue for some time.

See also **Bank Bailouts; Corporate Tax Shelters; Financial Regulation; Corporate Crime (vol. 2)**

Further Reading

Akhigbe, A., A. Martin, and M. Newman, "Risk Shifts Following Sarbanes-Oxley: Influences of Disclosure and Governance." *Financial Review* 43 (2008): 383–401.

Alkhafaji, A., "Corporate Governance: The Evolution of the Sarbanes-Oxley Act and Its Impact on Corporate America." *Competitive Review: An International Business Journal* 17, no. 3 (2007): 193–202.

Anandarajan, A., G. Kleinman, and D. Palmon, "Auditor Independence Revisited: The Effects of SOX on Auditor Independence." *International Journal of Disclosure and Governance* 5, no. 2 (2008): 112–126.

Ashbaugh-Skaife, H., D. Collins, W. Kinney, and R. LaFond, "The Effect of SOX Internal Control Deficiencies on Firm Risk and Cost of Equity." *Journal of Accounting Research* 47, no. 1 (2009): 1–43.

Baynes, L., "Just Pucker and Blow? An Analysis of Corporate Whistleblowers, the Duty of Care, the Duty of Loyalty, and the Sarbanes-Oxley Act." *St. John's Law Review* 76, no. 4 (2002): 875–896.

Bhagat, S., B. Bolton, and R. Romano, "The Promise and Peril of Corporate Governance Indices." *Columbia Law Review* 108, no. 8 (2008): 1803–1882.

Bradford, M., E. Taylor, and J. Brazel, "Beyond Compliance: The Value of SOX." *Strategic Finance* (May 2010): 48–53.

Butler, H., and L. Ribstein, *The Sarbanes-Oxley Debacle: What We've Learned: How to Fix It.* Washington, DC: AEI Press, 2006.

Chang, H., G. Fernando, and W. Liao, "Sarbanes-Oxley Act, Perceived Earnings Quality and Cost of Capital." *Review of Accounting and Finance* 8, no. 3 (2009): 216–231.

Department of the Treasury, *Financial Regulatory Reform: A New Foundation: Rebuilding Financial Supervision and Regulation.* Washington, DC: Department of the Treasury, n.d.

Gifford, R., and H. Howe, "Regulation and Unintended Consequence: Thought on Sarbanes-Oxley." *CPA Journal* 74, no. 6 (2004): 6–10.

Jung, K., "How Will the Current Economic Crisis Change Corporate Management?" *SERI Quarterly* (October2009): 63–72.

Marshall, J., and E. Heffes, "Is Sarbanes-Oxley Working? Study Suggests It Is." *Financial Executive* 24, no. 1 (2008): 10.

Mason, M., and J. O'Mahony, "Post-Traditional Corporate Governance." *Journal of Corporate Citizenship* (Autumn 2008): 31–44.

Mishra, S., "Counting Progress: The State of Boards Five Years after Sarbanes-Oxley." *Corporate Governance Advisor* 16, no. 1 (2008): 12–20.

Petra, S., and G. Lukatos, "The Sarbanes-Oxley Act of 2000: A Five-Year Retrospective." *Corporate Governance* 9, no. 2 (2009): 120–132.

Rezaee, Z., *Corporate Governance Post-Sarbanes-Oxley: Regulations, Requirements, and Integrated Processes.* New York: John Wiley, 2007.

Rittenberg, L., and P. Miller, *Sarbanes-Oxley Section 404: Looking at the Benefits.* Altamonte, FL: IIA Research Foundation, 2005.

Romano, R., "The Sarbanes-Oxley Act and the Making of Quack Corporate Governance." *Yale Law Journal* 114, no. 7 (2005): 1521–1611.

Romano, R., "Does the Sarbanes-Oxley Act Have a Future?" *Yale Journal of Regulation* 26, no. 2 (2009): 229–342.

Sherman, S., and V. Chambers, "SOX as Safeguard and Signal: The Impact of Sarbanes-Oxley Act of 2002 on US Corporations' Choice to List Abroad." *Multinational Business Review* 17, no. 3 (2009): 163–178.

Stovall, D., "SOX Compliance: Cost and Value." *Business Review* 11, no 2 (2008): 107–113.

CORPORATE TAX SHELTERS

Keith C. Farrell

A fundamental objective of the federal tax law is to raise revenues to cover the cost of government operations. Ordinarily, Congress will set annual budgets, based on anticipated revenues, to plan expenditures and create a balanced budget. Until recently, the last balanced budget was in 1969. Beginning in 1970, there were 28 straight years of deficits. The budget was again balanced from 1998 through 2001, but, since 2002, the federal budget has run at a deficit—in fact, the largest in the nation's history.

The internal revenue code (IRC) comprises numerous code sections, complete with abrupt twists and sudden stops. It has been a complaint of U.S. taxpayers that the tax code is too complicated, often defying logic. Even trained professionals can be baffled by the complexity of a tax return. Recently, the Internal Revenue Service (IRS), the governmental body charged with collecting taxes and auditing tax returns for compliance, has stated that its mission is to simplify the tax code. However, ask any tax professional, and he or she will tell you that, to date, simplifying the tax code has seemingly resulted in three additional binders of tax code.

The IRS distributes more than 650 types of tax forms, schedules, and instructions (Hoffman et al. 2009). That being said, there often is a reason behind every oddity that occurs in the tax code, whether it is an economic, social, or political reason. An example is how the federal government has tried to encourage charitable giving to nonprofit organizations. An individual's ability to deduct charitable contributions from his or her taxes is a social practice that Congress has encouraged through tax deductions. Another example is research and development credits, which are given to encourage organizations to develop innovative ideas and processes.

Background

During the thriving 1990s, business in the United States was growing at unprecedented levels, breaking many corporate earning records. Between 1988 and 1998, corporate revenues grew 127 percent, from $292.5 billion to $666.4 billion. The surge also had a positive impact on the U.S. Treasury. Throughout this time period, reported corporate taxable income increased by 99 percent, or from $94.5 billion to $188.7 billion (Crenshaw 1999). So why did corporate taxes not keep pace with corporate revenues? Experts say that this was due to the emergence of complicated tax shelter plans.

VARIOUS REASONS FOR TAX CODE

Social

Home mortgage deduction.
Encourage society to purchase homes by subsidizing the interest cost.

Charitable contribution deduction.
Encourage society to give to charities.

Adoption tax credit.
Encourage and help subsidize adoptions.

Retirement plans (IRA, 401(k), etc.).
Create means to save and encourage retirement planning.

Hope and Lifetime Learning credits.
Encourage students to attend higher educational institutions by subsidizing a part of the cost.

Economic

Section 179.
Allows for an immediate write-off of an asset rather than depreciating it over a period of time. This allows a company to recoup its investment faster.

The Selection.
Allows small corporations to avoid double taxation.

Political

Tax incentives for farmers.
Special income averaging and depreciation methods for the farming industry.

Oil and gas exploration.
Expense drilling and development costs immediately rather than capitalizing and amortizing over a period of time.

Other

Dividend received deduction.
Grants relief to corporations from triple taxation of income and dividends.

Like-kind exchange.
Allows for the deferral of tax on capital gain transactions that occur from trading property and not receiving cash.

Natural disasters.
Usually involve charitable contribution incentives for donations to charities. Often adjust tax-filing dates to assist and encourage compliance. Examples are 9/11 and Hurricane Katrina.

During the 1990s, a peculiar situation developed where, by strict application of the IRC, tax professionals were able to create paper losses that a corporation would be able to use to offset income. This strange phenomenon caught the eye of the IRS in the late 1990s as it began discover the flourishing industry of marketed tax planning packages that enabled corporations to lower their total taxable income and, ultimately, pay less in taxes. In 1999, Stanford law professor Joseph Bankman projected the cost to the U.S. Treasury to be at $10 billion (Stratton 1999). It is reasonable to expect the current cost to have grown greater since that time.

Total corporate taxes paid as a percentage of the entire amount of taxes collected by the IRS have fallen significantly over the past two decades as corporations have found and exploited loopholes in the IRC. These loopholes allow them to reduce their total tax bill, usually by concealing revenues or accumulating additional expenses. For example, a corporation is taxed on its net income, which is generally calculated by taking total revenues received less total expenses incurred to generate the income. By lowering revenues or amassing additional expenses, you can lower your net income and, effectively, your total tax due. These loopholes manipulate the IRC in ways that were never intended by Congress. Tax sheltering methods can be legitimate or illegitimate.

HOW DID THE TAX SHELTER INDUSTRY START?

In the 1990s, during a period of startling corporate growth, it became a strategy of tax departments in many large companies to find solutions to lower the tax liability that would be due on substantial taxable income. Managers aggressively reviewed their budgets for ways to lower cost, and no expense was bypassed. It seemed logical that if all expenses listed on an income statement were fair game, then tax expense would eventually become a focus for cost-conscious managers.

The industry was not started by the invention of tax shelters; corporate managers did not seek out accountants' and lawyers' advice on how to shelter income, but the industry really started with accounting and law firms creating tax shelter plans and promoting them to their high–net worth individuals and corporations with substantial taxable income. It was during this period that many companies' best tax professionals were recruited by large accounting firms for their technical expertise.

The incentive was the ability to earn higher incomes by designing and marketing these tax shelter plans (Rostain 2006). There were penalties in place—20 percent of money received for implementing the tax shelter—but many firms had feasibility studies performed that proved that the profits created far exceeded the penalties that could be incurred. These marketed tax shelters would create sizeable tax write-offs and, consequently, bring in substantial fees for their implementation. It may cost $200,000 to purchase the services required to set up and execute these schemes, but if they save the company $2 million in taxes, it is worth the expense.

Naturally, there are two sides to this debate. On one hand, if a given transaction follows the letter of the law, then how can it be considered abusive or unethical? Conversely, it is justifiable to deem transactions that contain no economic gain, aside from lowering an entity's tax liability, as fraudulent tax reporting?

What Is a Tax Shelter?

There is no clear definition that characterizes all tax shelters. The purpose of a tax shelter is "to reduce or eliminate the tax liability for the tax shelter user" (Committee on Governmental Affairs 2005, 1). The definition of a tax shelter would include both legitimate and illegitimate actions. The controversy centers on what is considered tax planning and what is considered abusive tax sheltering.

There are many instances written into the IRC that allow a company to structure a transaction that will reduce the tax liability of the organization. It is reasonable for a person to plan his or her affairs so as to achieve the lowest tax liability. Judge Learned Hand is cited as saying, "There is not even a patriotic duty to increase one's taxes" (*Gregory v. Helvering* 1934). It is reasonable to believe that if these taxpayers follow the IRC, they should be rewarded for their proper planning and work. For years, tax minimization tactics have been used and have afforded taxpayers the ability to properly plan transactions to achieve the least tax consequences. However, it should be noted that these minimization tactics have been done using acceptable, practical procedures. The argument next focuses on whether these transactions ordinarily contain substance and motivation on some economic level to justify performing the transaction.

Abusive tax shelters can be categorized as financial mechanisms with the sole purpose of creating losses to deduct for tax purposes (Smith 2004). These complex transactions produce significant tax benefits in ways that were never intended by the tax code. These benefits were never expected by the underlying tax logic in effect and, in essence, are transactions used only to avoid or evade tax liability.

Since there is no firm differentiation between legitimate and illegitimate tax planning, it is hard to tell where the line is. A working definition of an abusive tax shelter is a "corporate transaction involving energetic paper shuffling aimed at having favorable tax consequences along with no, or next to no, economic consequences other than the tax consequences" (Shaviro 2004, 11). The purpose of these types of transactions is to create transactions that will generate tax losses that can be offset against other taxable income. There is no economic sense to these transactions except to generate these losses and reduce the total tax liability.

At its core, the IRS is the agency exclusively responsible for detecting any transaction with the sole purpose of eliminating or avoiding taxes. The IRS, through audits of filed returns, and the U.S. Treasury have begun to spot and publish legal regulations on transactions they consider abusive. These mandates warn taxpayers that use of such listed

transactions may lead to an audit and assessment of back taxes, interest, and penalties for using an illegal tax shelter.

The IRS requires that, under certain circumstances certain transactions be reported and disclosed to the IRS as potentially illegal tax shelter transactions. A listed transaction is one that the IRS has determined to have a potential for tax avoidance or evasion. In addition, transactions that are similar in their purpose to the listed transactions require similar disclosure. The IRS uses several distinctive judicial doctrines to determine whether a transaction is legitimate or abusive in nature.

Why Tax Shelters Are Harmful

When enacting changes to the tax code, Congress is often directed by the concept of revenue neutrality. Revenue neutrality is the idea that new legislation will neither increase nor decrease the net revenues produced under existing laws and regulations. In other words, the total revenues raised after new tax laws are passed should be consistent with revenues generated under the prior tax laws. One taxpayer will experience a decrease in tax liability, however, at another taxpayer's expense.

When corporations engage in illegitimate tax sheltering schemes, they, in essence, steal from the U.S. Treasury. Over the years, billions of tax dollars have been lost. Recently, the IRS and Congress have taken a firm position with legislation to impede tax shelters that have been identified. It is estimated that legislation to prohibit certain shelter transactions, specifically lease-in lease-out shelters and liquidating real estate investment trust transactions, have saved taxpayers $10.2 and $34 billion, respectively (Summers 2000).

When corporate taxpayers do not pay their respective tax liabilities, the result is lower revenues for the U.S. Treasury, which ultimately causes or escalates a government's deficit. Congress, the U.S. Treasury, and individual U.S. taxpayers are dependent on corporations paying their fair share of the tax bill to maintain government operations. Shortages in tax revenues can make fiscal planning difficult when budgeted income falls short of what was anticipated and pledged for various governmental programs.

To maintain tax revenue collections, Congress has only a couple of options: raise corporate taxes or raise individual taxes. Buried deep in the corporate tax shelter controversy is their effect on individual taxpayers. A side effect of a corporation engaging in fraudulent tax practices is that the federal government redistributes the tax burden, ordinarily, back onto the remaining taxpayers, who would otherwise enjoy a tax reduction. To say it differently, the rest of the population picks up the tab for the use of abusive corporate tax shelters.

Why Tax Shelters Can Be Beneficial

In the 1980s, President Ronald Reagan cut corporate tax rates as part of his monetary policy. The United States was a leader worldwide in lowering its tax burdens on

AN EXAMPLE OF A TAX SHELTER TRANSACTION

A corporate taxpayer agrees to purchase property from a foreign entity for $101 in exchange for $1 cash and a 10-year interest payment–only loan of $100 at 10 percent. The corporation will be required to make annual payments of $10 on the loan for interest. Subsequently, the foreign entity leases the property back from the corporation to use during the period for $10 per year. At the end of the 10-year period, when the balance on the loan is due, the corporation will sell the asset back to the entity for $100, thus retiring the debt to the foreign entity.

What is the benefit of this transaction for the corporation? The $10 lease revenue received negates the $10 annual interest expense, allowing the corporation to operate this transaction without cost. In addition, it will receive additional depreciation expense over the 10 years it owns the asset. Foreign assets that are used for these types of transactions typically involve governmental infrastructure—for example, water and sewer systems. These assets have no value to a U.S. corporation and would never be abandoned by the foreign government entities from which they are purchased. This is a good example of a transaction that has no economic purpose and is solely performed to reduce tax liability (Smith 2004).

It is important to note why transaction schemes like the aforementioned are difficult for the IRS to contest. The purchase of assets and claiming depreciation is allowable under the current IRC and is altogether different from not reporting income that is received from an individual's side business. It is more difficult to disallow a deduction that is in compliance with the tax code than to substantiate the omission of earned income as a violation of the IRC.

corporations as a way to facilitate economic growth, and, during the mid-1980s, the United States' tax rates were the lowest around the world. However, this started a sequence of events where many industrialized countries around the world began cutting their tax rates by an average of 30 percent in response, according to the Organisation for Economic Co-operation and Development (OECD), a group of 30 countries that works to address economic and social issues.

Twenty-five years later, many counties around the globe have surpassed the United States in its tax-cutting policies. Federal and state corporate taxes average 39.3 percent, approximately 10 percentage points higher than the OECD average ("Let's Make a Deal" 2005). To look at it from a different angle, a corporation in the United States has Uncle Sam as more than a one-third shareholder.

Indeed, of the 30 wealthiest countries in the world, the United States now levies one of the highest corporate income tax rates on its businesses (along with Japan, Canada, Germany, and Spain). In 1996, these 30 countries' average corporate tax rate was 38–30 percent that in the mid-2000s. Overall, global corporate tax rates fell over 20 percent during this time period (Edwards and Mitchell 2008). Although U.S.

individual tax rates decreased during this time period, corporate tax rates have remained unchanged.

Furthermore, the effects tax rates have on U.S. businesses go beyond cutting the tax piece of the profits out of a corporation's net income. The world has become a global marketplace, where executives and managers compete against not only their rivals next door but on the other side of the world. Higher corporate tax rates place U.S. companies at a competitive disadvantage when compared to their foreign counterparts. Higher tax rates produce increased pressure to maintain or lower costs.

Imagine two identical corporations located in the United States and Ireland. Ireland's corporate tax rate is 12.5 percent. These two companies have the same gross sales and administrative costs and, with all other factors being the same, report the same net income. However, the corporation in Ireland is allowed to keep an additional 27.5 percent of its income in comparison to the one located in the United States (40 percent versus 12.5 percent tax rates). This additional income can be used for additional research and development costs, higher employee wages, or greater dividend payouts for stockholders. To gain greater market share, the Irish corporation is better situated to compete on price and can still produce the same net income after taxes as the U.S. corporation with lower prices.

Having one of the highest tax rates in the world is self-defeating because it encourages U.S. corporations to engage in questionable tax practices as a means of staying competitive globally. Many legal and accounting firms are hired primarily for the purpose of creating arrangements that enable the company to pay little or no tax. With real tax benefits achieved by moving operations to countries like the Cayman Islands, Bermuda, and other international tax havens, many CEOs and boards of directors feel that it is their duty to get involved with these practices.

Solutions to Abusive Corporate Tax Shelters

With high tax rates versus foreign competitors, a potential solution would be to lower the corporate tax rate imposed on U.S. corporations. If a primary reason to engage in questionable tax practices is to become more competitive versus global competition, a tax rate that is more in line with other similar industrial countries could alleviate the pressure that causes corporation managers to investigate these practices. A lower flat tax rate for all industries could not only benefit corporations, but also their employees, who would work for more competitive organizations. A result would be more jobs and job security. In addition, with the need for tax shelters removed, decreasing the use of phony transactions and bringing into the United States income that was held offshore would create a windfall of revenue for the U.S. Treasury.

When President Reagan first initiated corporate tax cuts as part of the Tax Reform Act of 1985, other countries responded by lowering their tax rates. It is reasonable to expect this same activity to occur again should the United States lower its corporate tax rates, but it probably cannot afford to lower them much more. Only a tax-free situation

would ensure that corporations would not find motivation to investigate tax shelter activities.

Another option, the one preferred by President Barack Obama, would be to require that a corporation's *book income* be equal to its *tax income.* Corporations are allowed to maintain two sets of books: book and tax. Book income is what is reported to shareholders, while tax income is what is reported to the IRS for taxation purposes. Many transactions deductible for book purposes are not deductible for tax and vice versa. An example of this is the depreciation expense. Differing methods are required to be used when computing depreciation expenses for book and tax purposes. Generally, tax depreciation allows you to write off the value of an asset much quicker than book. This generates a higher book income and a lower tax income. These types of differences occur quite frequently because book and tax income do not agree.

This encourages managers to perform transactions that show a lower tax income, and therefore a lower tax liability, while still reporting the higher book income to the shareholders. In other words, they are able to realize the best of both worlds. To remedy this problem, making tax income equal to book income would once again deter tax departments from creating loopholes in the tax code designed specifically to maintain book income but lower tax income. The Obama administration has sought to apply this strategy to companies operating out of the Cayman Islands. The administration also worked with the government of Switzerland to revise its tax laws in order to allow the U.S. government to levy taxes on certain U.S. holders of Swiss bank accounts.

Conclusion

Embedded in the IRC are numerous tax-planning possibilities for taxpayers. Many corporations have taken tax planning a step too far, infringing on what may be out of bounds in the field of tax planning. Arguments can be made on both sides of the debate as to why corporations should or should not engage in such activities, but the fundamental reason that abusive tax sheltering is detrimental is its redistribution of the tax burden. In addition, tax-sheltering methods should be considered abusive and rejected in their entirety when they offer a benefit that is inconsistent with the purpose of the tax code.

See also **Corporate Governance; Debt, Deficits, and the Economy; Financial Regulation**

Further Reading

Committee on Governmental Affairs, *The Role of Professional Firms in the U.S. Tax Shelter Industry.* Washington, DC: U.S. Government Printing Office, 2005.

Crenshaw, Albert B., "When Shelters Aren't Aboveboard: IRS, Hill Step Up Efforts as Improper Deals to Help Firms Cut Taxes Rise." *Washington Post* (November 23, 1999): E01.

Edwards, Chris, and Daniel J. Mitchell, *Global Tax Revolution: The Rise of Tax Competition and the Battle to Defend It.* Washington, DC: Cato Institute, 2008.

Gregory v. Helvering, 69 F.2d 809, 810 (2nd Cir. 1934), aff'd, 293 U.S. 465 (1935).

Hoffman, William H., et al., *South-Western Federal Taxation: Corporations, Partnerships, Estates and Trusts.* Belmont, CA: Thomson South-Western, 2009.

"Let's Make a Deal." *Wall Street Journal* (December 28, 2005): A14.

Rostain, Tanina, "Sheltering Lawyers: The Organized Tax Bar and the Tax Shelter Industry." *Yale Journal on Regulation* 23 (2006): 77.

Shaviro, Daniel N., *Corporate Tax Shelters in a Global Economy.* Washington, DC: AEI Press, 2004.

Slemrod, Joel, *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes,* 4th ed. Cambridge, MA: MIT Press, 2008.

Smith, Hedrick, *Tax Me If You Can.* Documentary. Boston: PBS (a Frontline coproduction with Hendrick Smith Productions), 2004.

Stratton, Sherly, "Treasury Responds to Critics of Corporate Tax Shelter Proposals." *Tax Notes* 84 (1999): 17.

Summers, Lawrence H., *Tackling the Growth of Corporate Tax Shelters.* Washington, DC: Office of Public Affairs, Department of the Treasury, 2000.

D

DEBT, DEFICITS, AND THE ECONOMY

John J. Seater

When conversation turns to the economy, one of the most popular topics of discussion is the government deficit. Newspaper columnists, TV pundits, and, of course, politicians never tire of talking about the size of the deficit and what it means for the economy. Big deficits are considered bad—except that back in the 1950s and 1960s, they often were considered good. Big deficits depress the economy because they drive up interest rates—except that back in the 1950s and 1960s, the usual argument was that deficits stimulated the economy by encouraging people to spend more. So which is it: Are deficits good or bad? Do they depress or stimulate the economy? To answer those questions, we have to answer a more fundamental question: Exactly what *is* the government deficit? Once we know that, we can proceed to the more interesting questions of how deficits affect the economy and whether they are good or bad.

Debt and Deficits: What Are They?

The deficit is the addition to the outstanding stock of government debt, so to understand what the deficit is, we first have to understand what government debt is. The government undertakes many activities, from national defense to providing medical insurance. To pay for them, the government usually collects taxes. Sometimes, though, the government prefers to postpone collecting part of the taxes it needs and instead borrows funds by selling government bonds to the public. Those bonds, just like a corporate bond, represent a loan the government has taken out and eventually will repay. The person

TYPES OF GOVERNMENT DEBT

Governments issue several types of debt, which can be classified in various ways. One classification is by the type of government that issued the debt. In the United States, the main divisions are federal, state, and local debt; local debt can be divided further by type of locality, such as county or city. A second classification of government debt is by maturity at the time of issue. When we talk about a 10-year bond or a 30-year bond, we are talking about the length of time between the date when the bond was first issued and the date on which the principal will be repaid. Federal debt is divided into three convenient maturity categories. Treasury *bills* have initial maturities of 1 year or less (three-month bills, year bills, etc.); Treasury *notes* have initial maturities of between 1 and 10 years; and Treasury *bonds* have initial maturities longer than 10 years. State and local government securities generally are just called bonds, irrespective of the initial maturity. A *perpetuity* is a bond with an infinite maturity, which means the principal is never repaid and interest payments are made forever. The British government once issued some perpetuities, calling them consols.

A third way of classifying government securities is by the source of the revenue to repay them. *General obligation bonds* will be repaid with revenue collected by taxing the public; *revenue bonds* will be repaid with revenue collected from specific user fees, such as bridge or highway tolls. This way of classifying debt is used only for state and local debt.

who buys a government bond hands over money to the government and in return gets a bond stating the amount of the loan (the principal or face value of the loan), the interest rate that will be paid on the loan, and the date when the principal will be repaid (the maturity date of the loan). The money paid to the government by the buyer of the bond is that person's loan to the government, and the bond is the contract stating the terms of the loan. The government debt is the total amount of bonds that the government has issued but not yet repaid.

Whenever current government expenditure exceeds tax revenue, the government borrows the difference by selling new bonds to the public. In such a situation, the government budget is said to be in deficit. The amount of new debt issued in a given period of time (such as a calendar year) constitutes the deficit for that period. In contrast, when expenditure is less than tax revenue, the government budget is in surplus. At any time, the deficit is the negative of the surplus and vice versa.

How Much Government Debt Is There?

At the end of 2009, there was about $12.3 trillion of federal debt outstanding. Of that, 43 percent ($5.3 trillion) was held by federal agencies and trust funds, which means that the government owed almost half the debt to itself. Such internal debt is only a bookkeeping

device for tracking the flows of funds within the federal government. An accurate analogy would be a household in which one child borrowed money from a sibling. That kind of intrafamily debt has no bearing on the family's net indebtedness and is ignored by credit rating agencies, banks, credit card companies, and so forth. The situation with respect to intragovernment debt is exactly the same: as far as the economy is concerned, the debt doesn't exist. It has no implications at all for the economy or public welfare. Unfortunately, popular discussions of the debt frequently fail to distinguish between internal and external government debt and thus overstate the relevant number, which is the amount of federal debt held by private investors. At the end of 2009, that amount was about $7 trillion. State and local governments also issue debt, and they have about $2.4 trillion in outstanding debt, most of which was held by private investors. Thus, the total amount of privately held government debt was about $9.4 trillion at the end of 2009.

Until about the mid-1980s, government debt as a fraction of gross domestic product (GDP) of the U.S. economy was not especially large except during wars and immediately after them. At the end of the Second World War, for example, outstanding federal debt alone (i.e., ignoring state and local debt) was slightly larger than GDP, and then it fell substantially over the next two or three decades. The federal government always has issued debt to cover part of the abnormally high level of government purchases during wars and then paid off the wartime debt in the following peacetime. By using debt to finance unusually high purchases during wars, the government avoids large fluctuations in tax rates, which would have adverse effects on economic activity. Since the mid-1980s and especially since the end of 2008, government debt has grown substantially relative to GDP. That growth is unusual because it resembles wartime debt behavior but has occurred in the absence of any major war. At the end of 2009, U.S. GDP was about $14.3 trillion, so the ratio of total, privately held outstanding government debt to GDP was about 76 percent. That is still below the debt-to-GDP ratio at the end of 1945, but it is growing unusually fast and, unlike during a war, is accompanied by no expectation of reduced future government expenditure to lead to a retirement of the debt without increases in tax rates. Note that the focus here is restricted to privately held federal, state, and local debt because that is the debt that matters to taxpayers and the economy in general. The figure usually seen in the news refers only to federal debt but includes debt held by federal agencies as well as by private individuals. Total outstanding federal debt at the end of 2009 was $12.3 trillion, equal to 86 percent of 2009's GDP of $14.3 trillion.

The foregoing numbers on the amount of outstanding government debt are the numbers one would see reported in the newspaper. They must be adjusted before they can be used to discuss the effect of debt on the economy.

The most important adjustment is for inflation. The *nominal* value of a bond is the price in dollars that it would fetch on the open market. The *real* value of that same bond is the number of units of output that it can buy. If DVD movies cost $20 each, then the real value of a $200 bond is 10 DVD movies. In other words, if you sell your bond,

you will receive in return enough cash to buy 10 DVDs. If, however, the prices of all goods double, so that DVDs now cost $40 each, then the bond's cash value now buys only 5 DVDs. The bond's nominal value is unchanged by inflation and remains at $200. Its real value, however, is changed. Real values are what matter because what people care about is how many goods their paper assets can buy. That is precisely what the real value of a bond measures. Adjusting official debt and deficit figures for inflation can change the measurement of the debt's size by a substantial amount. In 1947, for example, official federal government statistics report a surplus of $6.6 billion. However, inflation that year was almost 15 percent. That inflation reduced the value of outstanding debt by about $11.4 billion. That reduction was equivalent to an additional surplus because it reduced the real value of what the federal government owed its creditors. The true surplus, therefore, was about $18 billion, nearly three times as high as the official figure. Another example is the decade of the 1970s, when the official federal deficit was positive every year but the inflation-corrected deficit was negative (that is, there was a real surplus) in exactly half those years.

Another adjustment is for changes in interest rates. The value of outstanding debt changes as market interest rates change. To see what is involved, suppose that you buy a one-year $10,000 Treasury bill (equivalently, you make a loan of $10,000 to the federal government) at 10:00 A.M. The bond carries an interest rate of 10 percent, which means you will be paid $1,000 in interest when the bond matures one year from now. At 11:00 A.M., the Federal Reserve announces a change in monetary policy that causes one-year interest rates to fall to 9 percent. Your bond now is worth more than when you bought it an hour ago because you could now sell the bond to someone else for more than $10,000. The reason is that anyone who wants to lend $10,000 for one year now will find that new bonds pay only 9 percent, meaning an interest payment in one year of $900. Your bond, however, has a 10 percent rate locked in and will pay $1,000 interest for sure. That makes your bond's market value higher than its par value of $10,000. These kinds of changes happen continually, day in and day out. As a result, the market value of the outstanding government debt fluctuates from day to day even if there is no inflation and even if the government issues no new debt and retires no outstanding debt. The market value of outstanding debt will be greater than the par value if interest rates have fallen on average since the debt was issued and will be smaller than the par value if rates have risen. The difference between par and market value of the outstanding debt is typically a few percentage points. Unfortunately, market values for the total outstanding government debt are not readily available. Governments do not report them, and newspaper reports rarely mention them.

The Economic Effects of Government Debt

To see how government debt may affect the economy, we need to understand how government debt affects the flow of net income to the people lending to it. When the

government borrows, it promises to repay the lender. To make those repayments, the government ultimately will have to raise extra taxes, beyond what it needs to pay for its other activities. The economic effect of government debt depends heavily on how taxpayers perceive those future taxes. Perceptions are difficult to measure, and neither economists nor others understand exactly how people form their perceptions. As a result, economists still disagree on the economic effect of government debt.

A simple example will help illustrate the situation. Suppose the government buys $1 trillion worth of goods and services every year and pays for them entirely by collecting taxes. The government's budget is balanced because revenue equals expenditure. Suppose that the government decides to change the way it finances its expenditures but does not change the amount being spent. In the first year, the government reduces taxes by $100 billion and replaces the lost revenue by selling $100 billion worth of bonds that mature in one year and carry an interest rate of 10 percent a year. In the second year, the bonds mature, and the government pays the $100 billion principal and the $10 billion of interest. Taxes in the first year are $100 billion lower (the government is running a deficit), but in the second year taxes are $110 billion higher (the government is running a surplus). How does this rearrangement of the timing of tax collections affect people? In the first year, people give the same total amount of revenue to the government as they did when they paid only taxes, but now $100 billion of the total payment is in the form of a loan that will be repaid in the second year with an extra $10 billion in interest. On this account, people may feel richer because they seem to be paying less in total taxes over the two periods. This year, they pay $900 billion in taxes and $100 billion in loans for the same $1 trillion total that they were paying before the government decided to issue debt. Next year, however, it seems they will be better off than before. They will pay $1 trillion in taxes, but they will receive $110 billion in repayment of their first-year loan. Their net payment in the second year will be only $890 billion. This seems like a good deal, but unfortunately it won't turn out that way. When the second year arrives, people will find that their net payment is $1 trillion, just as if the debt never had been issued. Why is that? To pay the $110 billion in principal and interest, the government must come up with an extra $110 billion in revenue, so it must raise taxes by that amount. Those extra taxes exactly cancel the payment of the principal and interest! The government gives with one hand and takes away with the other. The net result is that people do not really get back the $100 billion they lent the government or the $10 billion in interest on it, and the loan is equivalent to having paid the $100 billion in taxes in the first year. The same result holds from any maturity of debt, whether it is a 1-year bond, as in the previous example, a 10-year bond, or even a perpetuity.

Note, by the way, that the government cannot beat the mathematics by refinancing old debt with new debt. If the government tried to repay existing debt, including the interest on it, by issuing new debt, the amount of debt would grow at the rate of interest. In our example, in the second year, the government owes $110 billion in principal and

interest on the debt issued in the first year. The government could raise the revenue by issuing $110 billion in new debt. It then would have to pay $121 billion in principal and interest in the third year ($110 billion in principal and $11 billion in interest, assuming the interest rate stays at 10 percent for simplicity). Thus, the debt would grow by 10 percent every year that the government issued new debt to repay the old debt. The problem is that interest rates generally exceed the growth rate of the economy, so, in

WHAT DEBT IS THE RISKIEST?

There is an inconsistency in popular discussions of government debt compared to other types of debt. Corporations and households both issue debt (that is, borrow money). Corporate debt outstanding was about $7.3 trillion at the end of 2009, about $2 trillion less than the amount of privately held government debt. Household debt is larger. In 2009, households' total debt stood at $13.4 trillion, 43 percent larger than the privately held government debt.

Commentators regularly express concern that government debt represents a risk to the economy, once in a while express similar concerns about household debt, and virtually never mention corporate debt. In fact, household and corporate debt can represent an economic risk in some rather rare circumstances, but government debt virtually never represents such a risk. In a deep recession, debtors may become unable to repay their debts and be forced to default on them. That, in turn, can make financial institutions insolvent and lead to a collapse of the financial system. Such a mechanism seems to have been the reason the recession of 1929 became the Great Depression of 1932. Deflation made existing debt increasingly costly to repay, leading to widespread defaults on debt. The banking system came under great pressure and eventually collapsed with the banking panic of 1932.

This sort of thing happened from time to time up through the Great Depression but has not happened since, largely because of regulatory changes and an improved understanding by the Federal Reserve System of how to conduct monetary policy in the face of such circumstances. Such a collapse may nearly have happened in the financial turmoil of late 2008, when the market for collateralized debt obligations (CDOs) fell apart. CDOs were a new type of instrument that fell outside the regulatory structure that had worked so well since the Great Depression. Their emergence combined with other changes in the financial industry, such as the rise in importance of the housing lenders Fannie Mae and Freddie Mac, which also were outside the post-Depression regulatory structure. Strong action by the Federal Reserve System prevented a deflation that could have caused a repetition of the asset market crash that started the Great Depression.

In contrast, default by any level of government in the United States has been exceedingly rare, and the federal government has never defaulted on its debt obligations. However, the unprecedented peacetime rise in the amount of outstanding federal debt in 2009 and 2010 has raised concerns—unresolved at the time of this writing—about the government's ability to repay its debt.

finite time, the government would reach a point where it was issuing debt equal in value to the entire gross domestic product of the economy. After that, it would not be able to issue any new debt because the government would be promising to repay more than could possibly be available to it, and the scheme would come to an end.

Two major factors determine how government debt affects the economy. One is the kind of taxes the government uses to collect revenue, and the other is the way that people perceive the future taxes implied by current debt. It is easiest to start with people's perceptions in a simple case and then move on to the more complicated case that actually confronts us.

Suppose for a moment that taxes are very simple. In particular, suppose that the government uses what are called lump-sum taxes to finance everything it does. A lump-sum tax is one whose amount is independent of anything the taxpayer does. For example, a taxpayer could draw a number out of a hat, and that would be his tax, irrespective of whether he was rich or poor. Actual taxes are more complicated, usually being based on income, consumption, or some form of wealth. The taxpayer has some influence over how much of those kinds of taxes she pays because she can control how much income, spending, and wealth she has. For the moment, though, concentrate on the simple, even if unrealistic, case of a lump-sum tax. In that simple case, government debt is unlikely to have any significant effect on the economy. People generally try to estimate their future income, and, of course, what they care about is their income after taxes. That means that, in effect, they try to estimate their future taxes. As we have seen already, any government debt issued today implies extra taxes at some time in the future. If people are aware of that fact, then they will know that any reduction in today's taxes brought about by the government issuing new debt is going to be offset by more taxes in the future. The example above showed that the offset is exact. The question is whether people recognize at least approximately that the offset is exact. If they do, then bond finance is equivalent to tax finance, as the example above showed. In that case, government debt has no effect on anything important—a property known as Ricardian equivalence after David Ricardo, the economist who first discussed it. If people do not foresee all the future taxes implied by government debt, then they feel wealthier when the debt is issued but poorer in the future, when, unexpectedly, they have to pay higher taxes to finance the principal and interest payments. They then are likely to increase their consumption expenditure today and perhaps work less today. In the future, when the inevitable taxes arrive, they will have to reduce their consumption and increase their work effort. So if people do not correctly perceive the future taxes implied by current debt, they will alter their economic behavior when debt is issued or retired and thus affect the economy.

The situation becomes more complicated when we extend our examination to include the fact that taxes are not lump sum. Taxes in the real world take some fraction of the tax base, which is the thing taxed—income for an income tax, consumption purchases for a sales tax, and so on. To keep the discussion simple, restrict the story to an income

tax by supposing that that is the only kind of tax the government uses. The principles are the same for other taxes, so nothing important is lost by this simplification. The problem with taxes that are not lump sum, such as an income tax, is that they have positive *marginal tax rates.* The marginal tax rate is the fraction that you must pay in tax on the next dollar of income that you earn. A proportional income tax, for example, levies a fixed tax rate on your income, no matter how high or low your income is. If the marginal rate were 20 percent, then you would pay 20 cents on every dollar that you earn, whether you earn $10,000 or $10,000,000. Everybody would pay exactly 20 percent of their income in taxes. This is the so-called flat tax. Some state governments levy that kind of income tax. A graduated or progressive income tax is one whose tax rate rises with the income of the taxpayer. The federal income tax is that type of tax. Somebody earning $20,000 has a marginal tax rate of 15 percent, so if he earns another dollar, he will pay 15 cents of it to the federal government in tax. In contrast, someone earning $200,000 has a marginal rate of 35 percent and will pay in tax 35 cents of the next dollar she earns. For our purposes, it is sufficient to consider a proportional income tax, with the same marginal tax rate for everyone.

The important thing about marginal tax rates is that they affect people's economic behavior. People's choices depend on the tax rate they face. Think of someone trying to decide whether to work an extra hour. Suppose he earns $30 an hour. If there were no tax, then one more hour of work will earn him $30, pure and simple. If, in contrast, he is in the 15 percent tax bracket, he will get to keep only 85 percent of his extra $30 dollars, which is $25.50. The other $4.50 goes to the government as tax. Thus, the effective return to working another hour is not the stated $30 but the after-tax earning of $25.50. It is less attractive to work an hour for $25.50 than for $30, so fewer people would decide to work when there is a tax compared to when there isn't. The same reasoning holds for investment. People will be less likely to make the next investment (buying a new machine for their machine shop, for example), because the return on that investment is reduced by the tax.

So what does this all have to do with government debt? Remember that debt rearranges taxes over time. It therefore also rearranges the incentive effects associated with those taxes. For example, if the government reduces taxes today by issuing debt, in reality the taxes it reduces will be income taxes, not lump-sum taxes. Thus, by issuing debt, the government will reduce the disincentive effects of taxes today and increase them tomorrow. As a result, the government will affect the timing of people's economic decisions. The effects of rearranging disincentive effects over time get to be quite complicated, but the important thing for this discussion is that, precisely because debt does rearrange taxes and their disincentive effects over time, it has real effects on the economy. The situation becomes even more complicated if people cannot figure out exactly what the new timing will be after debt is issued. No one really knows when the government will collect the taxes to repay a new 30-year bond. It may decide to retire the bond early, or it may decide after 30 years to replace it with another bond, say a 5-year note, thus postponing

the repayment by 5 years. In the face of such uncertainty, figuring out exactly what the incentive effects will be can become extremely complicated.

Unfortunately, there is no reliable way to discover people's expectations about taxes, so we have to use statistical methods to learn the effect of government debt on the economy. Even though economists have been studying this issue for nearly 40 years, they have not yet reached a consensus. Statistical measures of the effect of debt on economic activity are straightforward in principle but difficult to carry out in practice. Overall, though, the evidence is that debt's effects are not strong. Some of the evidence even favors Ricardian equivalence (no effect of debt at all) as a close approximation. For example, Figure 1 shows two plots. One is the federal deficit as a share of GDP, and the other is the real interest rate on three-month Treasury bills. There is no obvious relation between the two series, and the correlation between them is a virtually nonexistent negative 1 percent.

A related issue here is the desirability of deliberately using deficits to influence the path of the economy. Under full equivalence of deficit and tax finance, no such thing can be done, of course, because deficits do not affect anything important. Under incomplete equivalence, though, deficits do have effects, as we have just seen. Therefore,

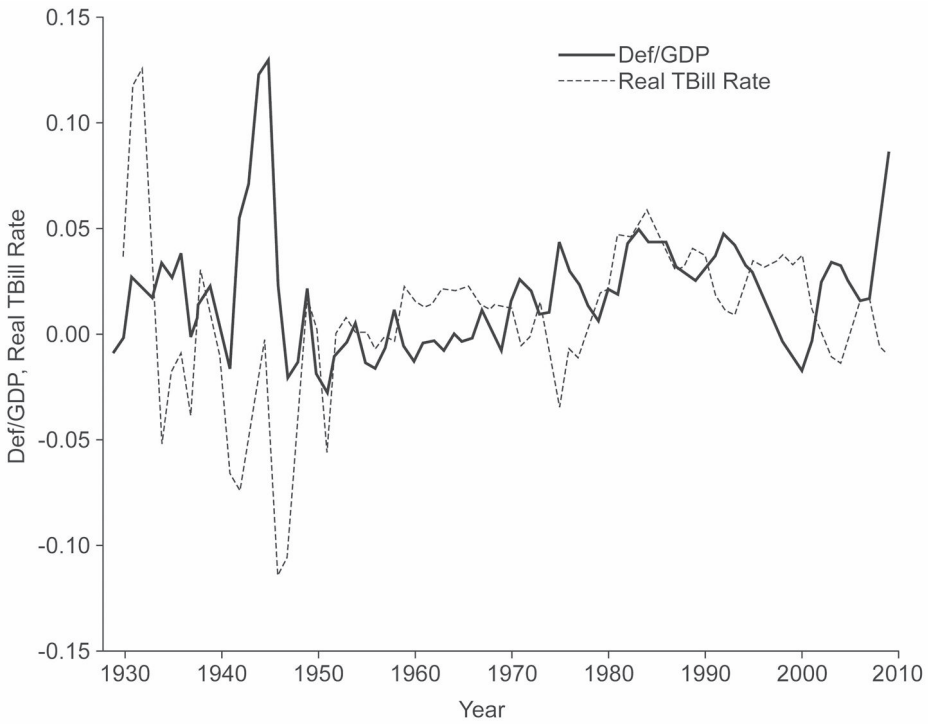


Figure 1. Federal Deficit to Gross Domestic Product Ratio and the Real Interest Rate on Three-Month Treasury Bills (Congressional Budget Office, President's Council of Economic Advisers)

it might seem desirable to run up deficits in recessions to encourage people to spend more and run up surpluses in booms to restrain spending. The problem is that these seemingly desirable effects arise for undesirable reasons: the taxes distort choices, and, on top of that, people may fail to perceive the effects of future taxes implied by deficits. Any such misperception means that deficits have effects in part because they fool people into thinking they suddenly have become wealthier (and conversely for surpluses). Is it desirable to influence the path of the economy by using a policy that is effective because it deliberately misleads the public? Such a proposition seems difficult to justify. Another problem is that any desirable effects are accompanied by other effects that might not be deemed desirable. When equivalence is incomplete, changing the stock of debt outstanding also changes the interest rate in the same direction. In particular, running a deficit in a recession would raise interest rates, which would reduce investment and economic growth, which in turn would reduce output in the future. Thus, using deficits to stimulate the economy now to ameliorate a recession comes at the cost of reducing output later. Whether that is a good exchange is not obvious and requires justification.

See also **Bank Bailouts; Consumer Credit and Household Debt; Corporate Tax Shelters; Financial Regulation; Income Tax, Personal; Trade Deficits (and Surpluses); War and the Economy**

Further Reading

Gordon, John Steele, *Hamilton's Blessing: The Extraordinary Life and Times of Our National Debt.* New York: Walker, 2010.

Kelly, Robert E., *The National Debt of the United States, 1914–2008.* Jefferson, NC: McFarland, 2008.

Morgan, Iwan W., *The Age of Deficits: Presidents and Unbalanced Budgets from Jimmy Carter to George W. Bush.* Lawrence: University Press of Kansas, 2009.

Wright, Robert E., *One Nation under Debt: Hamilton, Jefferson, and the History of What We Owe.* New York: McGraw-Hill, 2008.

Yarrow, Andrew L., *Forgive Us Our Debts: The Intergenerational Dangers of Fiscal Irresponsibility.* New Haven, CT: Yale University Press, 2008.

DUMPING OF IMPORTS

Thomas Grennes

Dumping is selling an imported product for less in the United States than the seller charges for a comparable product in the seller's own domestic market. This kind of activity is illegal in the United States, even if it does not reduce competition. Antidumping is part of a broader set of laws that deal with so-called unfair trade practices. Antidumping

laws can allow the U.S. government to impose taxes, called tariffs, on foreign-made products that have been found to have been dumped. Additional tariffs, called safeguards, can temporarily be imposed to offset surges in imports of a particular product.

Who Dumps?

Dumping has been illegal in the United States since 1921, but dumping cases have become more common in recent decades. More antidumping tariffs are now imposed globally in a single year than were imposed over the entire period of 1947 to 1970 (Blonigen and Prusa 2003). U.S. firms that compete with imports are the main beneficiaries, and they are also the main political proponents of antidumping law. High tariffs against dumping are a way to circumvent the limits on tariff levels agreed to by members of the World Trade Organization.

All buyers of imports and close domestic substitutes are harmed by antidumping laws. U.S. antidumping law applies to all trading partners, including its North American Free Trade Association partners, Canada and Mexico. Some of the more controversial cases have involved Canadian and Mexican products. The basic U.S. antidumping law was amended in 2000 by the Continued Dumping and Subsidy Offset Act, better known as the Byrd Amendment. The Byrd Amendment was found to violate the rules of the World Trade Organization regarding protectionism, and it was repealed by Congress in January 2006.

In the early experience with antidumping, U.S. firms were the most frequent filers of complaints. Over time, Canada, the European Union, and Australia became more frequent filers, and, by the late 1980s, these four traders accounted for more than 90 percent of antidumping cases filed in the world.

Recently, firms in other countries have become more frequent complainers, and since 2000, the four traditional filers accounted for only 33 percent of the cases. China and India have become more frequent filers, and since 2000, India has filed more cases than any other country. U.S. firms that were once the most frequent complainers about dumping have become some of the most frequent targets of antidumping cases. The United States is the world's largest trading nation, and its economic size influences the number of cases in which U.S. firms are involved. When data are adjusted for the volume of a country's trade, the prominence of U.S. firms is reduced.

East Asian countries—especially China, South Korea, and Taiwan—have been the most common targets of antidumping cases. The U.S. steel industry has generated more antidumping complaints than any other industry. These cases have pitted domestic steel producers against important steel-using firms. Steel users have organized a lobby, claiming that tariffs have destroyed more jobs in steel-using firms than they have saved in steel-producing firms. Other prominent dumping cases in the United States involved Canadian lumber, cement from Mexico, wooden furniture from China, and chemicals and electrical products.

THE BYRD AMENDMENT

The Byrd Amendment allows firms that file antidumping cases to receive the revenue from the tariffs imposed on import companies found guilty of dumping. Thus, the victim is rewarded twice by (1) reducing competition it faces from imports and (2) receiving tariff revenue. The United States has been the only country to resort to this unusual practice, and it was challenged immediately by other member countries in the World Trade Organization (WTO). The WTO ruled in 2000 that the amendment violated the rules of the WTO, and it authorized other WTO members to retaliate against the United States by imposing tariffs against U.S. exports. After the U.S. Congress refused to change the law, the European Union, Canada, and Japan imposed large tariffs against U.S. exports in 2005. Finally, in January 2006, Congress repealed the law but insisted on continuing payments to U.S. firms through 2007. Foreign sanctions against U.S. exports remained in place.

Some strange developments have occurred under the Byrd Amendment. In the case of wooden bedroom furniture dumped by Chinese firms, some U.S. furniture companies have been simultaneously paying tariffs on furniture they import and sell in the United States and receiving payments from complaints they filed under the Byrd Amendment against dumping of furniture.

Enforcing Antidumping

How is the U.S. antidumping law administered? U.S. firms claiming to be harmed by dumping can initiate action by filing a complaint with the U.S. Department of Commerce (DOC) against specific foreign dumpers. As the result of an investigation, the DOC has ruled in favor of dumping in 94 percent of recent cases filed. In determining whether the price charged in the United States is too low, the DOC rarely compares the price charged in the United States with a price charged in the supplier's home market. Instead, the DOC makes its own estimate of cost of production in the supplier's market. In effect, dumping in the United States becomes pricing below cost of production as estimated by the DOC.

If the DOC rules in favor of dumping, the case moves to the U.S. International Trade Commission (USITC) to determine whether U.S. producers were harmed by dumping. The USITC has found injury in 83 percent of recent cases. In assessing injury, the USITC staff is guided by a peculiar asymmetry in the law. The USITC is asked to estimate the damage done to U.S. producers by dumping, but it is not allowed to take into account the gain to U.S. buyers from paying lower prices for products affected by dumping. If harm is found, the USITC estimates the amount of dumping and recommends a remedy to the president. It is usually a tariff whose level is related to the dumping amount, and it is imposed for an indefinite period against firms guilty of dumping. The tariff is retroactive to the day the dumping complaint was filed. Consequently, imports

from accused firms often stop before cases are resolved. On the basis of the high percentage of successful cases, U.S. firms competing with imports have a strong incentive to complain about imports.

Impacts

What are the economic effects of the U.S. antidumping law? Domestic producers gain in the same way they gain from any tariff. Competition from imports is reduced, and domestic producers can charge a higher price for their products. Foreign suppliers who are not accused of dumping and do not face the dumping tariff also gain from the reduction in competition.

Consider the example of steel. Say that antidumping tariffs are imposed on certain foreign steel producers. All steel producers in the United States and foreign steel suppliers not subject to antidumping tariffs gain from antidumping tariffs. Because of reduced competition, domestic producers are able to raise their steel prices. Since both domestic steel and imported steel are more expensive, all buyers of steel in the United States are harmed by antidumping laws. Since the United States is a net importer of steel, the total value of losses to buyers of steel exceeds the gains to domestic steel producers. Many of the steel buyers are businesses that use steel in their own production, and an association of steel users has become a vocal opponent of steel tariffs in recent years.

Similar impacts occur from other antidumping examples. In the case of Canadian lumber, antidumping has increased the cost of a key component of housing. In the Mexican cement case, antidumping restrictions magnified shortages of cement following the hurricanes that hit the Gulf Coast in 2005. For all antidumping cases combined, losses to U.S. buyers have exceeded gains to domestic producers by an estimated $2 billion to $4 billion per year. Antidumping has become one of the costliest forms of trade protection for the United States and for the world as a whole (Blonigen and Prusa 2003).

Justification

If antidumping laws are harmful for the nation, are they merely special interest legislation for U.S. producers, or can they be justified in some other way? One possible rationale is that antidumping prevents foreign companies from achieving monopoly power in the U.S. market. It has been suggested that foreign dumpers might charge low prices to drive all U.S. rivals out of business. Without rivals, they would then raise prices to monopoly levels. However, this argument has two weaknesses. First, if the predatory firm succeeds in destroying all current rivals, it has no way of blocking entry by new firms once it raises its price. Second, real-world cases of monopoly achieved by this strategy are extremely rare. If the goal is to prevent lower prices for foreign-made products from leading to monopoly control, there is no reason to have a special law against foreign firms. Antitrust laws, which are laws against monopolies, could be enforced equally against both domestic and foreign companies who might acquire monopoly power.

There is an additional practical argument against the U.S. antidumping law. The administration of the law is said to be systematically biased toward finding dumping, even when there is none. Lindsey and Ikenson (2003) have constructed examples in which the DOC procedures produce prices in the United States that appear to be lower than in the supplying foreign country, even when the true prices are identical in the two countries. They conclude that the antidumping law is just a standard form of protectionism.

Dumping Reform

Short of completely repealing the U.S. antidumping law, are there ways to reform the law that would better serve producers, consumers, and society in general? First, the antidumping law could be modified to make it consistent with general antitrust policy. In that case, price differences would not be illegal unless they also increased the monopoly power of the dumping firm. For example, if a South Korean firm is one supplier of imported steel among many, lower prices charged by that firm would not necessarily be illegal. Its illegality would be judged in terms of its contribution to monopoly power in the U.S. market for steel. Retailers who offer discounts to students and senior citizens do not violate domestic antitrust law, even though they charge different prices for the same product. Price differences by foreign firms could be judged by the same standard as price differences by domestic firms.

A second reform would allow the DOC and USITC to estimate the consumer gains from dumping and compare them with domestic producer losses. Instead of evaluating exclusively the losses and harm to domestic producers, the agencies would evaluate dumping in terms of the general public interest of both buyers and sellers of products. By this broader standard, dumping that harms U.S. producers but provides greater benefits to U.S. buyers would not be illegal.

A third reform is to reduce barriers faced by U.S. exporters, especially in countries that charge different prices for their products in their home and foreign markets. Dumping can only occur if buyers in the lower-price market are prevented from reselling the product in the higher-price market. If Korean firms tried to dump steel in the United States, and buyers could resell the cheap steel in Korea, their scheme would not be profitable, and an antidumping case would not be necessary. Thus, negotiating to reduce trade barriers facing exports from the United States would discourage dumping in the United States.

Antidumping laws and all laws that protect producers against unfair trade practices face the possibility of penalizing perfectly legitimate behavior by sellers. Is it unfair to invent a new and better product that harms producers of traditional products? Was it unfair to introduce automobiles, which replaced horses and buggies, or computers, which replaced typewriters? The new competition from automobiles and computers must have appeared to be unfair to the traditional producers, and they were definitely harmed. Candle makers may have considered natural sunlight to be unfair competition,

and sellers of irrigation equipment may consider rainfall to be an unfair rival. However, if all practices that harm traditional producers are judged to be unfair and illegal, consumers will not be served, and there will be no economic growth.

See also **Foreign Direct Investment; Trade Deficits (and Surpluses)**

Further Reading

Blonigen, Bruce, and Thomas Prusa, "Anti-Dumping." In *Handbook of International Trade,* ed. E. K. Choi and J. Harrigan. Malden, MA: Blackwell, 2003.

Campbell, Doug, "Trade Wars." *Regional Focus* (Spring 2006): 20–23.

Drope, Jeffrey, and Wendy L. Hansen, "Anti-Dumping's Happy Birthday?" *World Economy* 29 (2006): 459–472.

Hufbauer, Gary Clyde, et al., *U.S.-China Trade Disputes: Rising Tide, Rising Stakes.* Washington, DC: Institute for International Economics, 2006.

Lindsey, Brik, and Daniel Ikenson, *Anti-Dumping Exposed: The Devilish Details of Unfair Trade Law.* Washington, DC: CATO Institute, 2003.

U.S. Tariff Commission, *Information Concerning Dumping and Unfair Competition in the United States and Canada's Anti-Dumping Law.* Washington, DC: USTC, 2009.

E

ELECTION CAMPAIGN FINANCE

Ruth Ann Strickland

Campaign finance costs associated with running for political office have historically evoked concern. Most political candidates rely heavily on fundraising for travel, public appearances, support staff, and mass media advertising. Unless they have independent wealth, they must raise monies from individual, business, nonprofit, and other organizational sources. Jesse Unruh, speaker of California's state assembly from 1922 until 1987, said money is "the mother's milk of politics." Many would argue today that this has been true since the inception of the U.S. electoral process.

Historical Background

As early as 1905, heavy corporate financing prompted Theodore Roosevelt to propose that candidates for federal office be required to disclose campaign finances and be prohibited from receiving corporate contributions. In 1907, Congress passed the Tillman Act, which prohibited candidates for federal office from receiving corporate contributions; and later, in 1910, Congress passed the Federal Campaign Disclosure Law, which required candidates for federal office to disclose sources of campaign financing (Farrar-Myers and Dwyre 2008, 8).

Owing to embarrassing incidents such as the Teapot Dome scandal and corruption in President Warren G. Harding's campaign of 1920, Congress passed the Federal Corrupt Practices Act, which required congressional candidates to disclose campaign

receipts and expenditures. In 1939 and 1940, the Hatch Acts prohibited political parties from soliciting campaign contributions and other support from federal employees. Because of the Hatch Acts, federal employees, until 1993, could not participate in political fundraising. In 1947, Congress passed the Taft-Hartley Act, which permanently made it illegal for labor unions to financially contribute to federal candidates for office.

Because so many campaign finance laws were ineffective and hard to enforce, Congress passed the Federal Election Campaign Act (FECA) of 1971. Replacing the old Corrupt Practices Act of 1925, the new law set limits on candidates' spending on communications media, established limits on financial contributions to candidates, and required disclosure of financial contributions made by political committees and individuals greater than $10, as well as disclosure by candidates and contributors and expenditures greater than $100. Revelations made after President Richard M. Nixon's resignation and funding illegalities in his 1972 reelection campaign catapulted election campaign financing back into the limelight and prompted Congress to amend FECA. In 1974, Congress established spending limits for presidential and congressional candidates and for national political parties in party primaries, general elections, and runoff elections. The new FECA set contribution limits on individuals, political action committees, and political parties and provided for voluntary public financing of presidential elections. FECA of 1974 established the Federal Election Commission to implement campaign finance law provisions (Cooper 2000, 259).

In 1976, the U.S. Supreme Court in *Buckley v. Valeo* (1976) declared some FECA provisions unconstitutional, primarily those dealing with campaign spending limits. The Court held that limits on campaign expenditures unreasonably restricted the free speech rights of corporations. *Buckley v. Valeo* allowed limits on campaign contributions on the rationale that this proviso would reduce actual corruption or the appearance of corruption in the electoral process. At the same time, it struck down limits on campaign expenditures saying that free speech permits candidates to spend as much as they choose (Farrar-Myers and Dwyre 2008, 13). After *Buckley v. Valeo,* an intense debate began over the question: Does money equal speech? Critics of the *Buckley* ruling say it allows giant corporations and wealthy individuals to overwhelm and drown out the voices of ordinary citizens; corporations, in essence, have a larger voice (or "more speech") than those who can make only small contributions (Cooper 2000, 260). On the other hand, the *Buckley* ruling is also criticized by free speech advocates who say that neither contributions nor expenditures should be limited, because this generally limits political discourse. Justices Antony Kennedy and Clarence Thomas have advocated overturning *Buckley* for these reasons (Farrar-Myers 2005, 48–50).

Congress amended FECA again in 1976 and 1979 to elaborate on "hard money" versus "soft money" and to ease up on contribution and expenditure disclosure requirements. Because candidates and political action committees voiced concerns over FECA's detailed reporting requirements, calling them burdensome and redundant, Congress

sought to streamline and simplify reporting requirements. Voter registration efforts and get-out-the-vote campaigns were exempted from the contribution and expenditure limits applied to hard money contributions to candidates. Although Congress did not create the hard/soft-money distinction, it specified that party committees could use hard dollars only toward contributions to party candidates or coordinated spending ceilings. The eased provisions gave state and local political parties a greater role to play in federal elections, as soft money contributions could be used to fund party activities if not the actual campaigns of candidates for office (Corrado 2005, 28–30).

Recent Years

Triggering events in the 1996 and 2000 presidential elections prepared Congress for another run at campaign finance reform. In 1996, Democratic fundraising practices, such as the "selling" of access to the White House, raised serious questions. In the 2000 election, both parties saw an increase in soft money contributions and the rise of issue-advocacy electioneering in which soft money is used to promote (primarily through media slots) issues that are near and dear to candidates while not endorsing the candidates themselves. The practice made many believe that the current campaign finance regulatory structure was ineffective. U.S. Senator John McCain (R-Arizona), in his run for the presidency in 2000, focused much of his time arguing for campaign finance reform and reducing the role of big money in U.S. politics (Cooper 2000). After dropping out of the 2000 presidential campaign, McCain returned to the U.S. Senate and joined forces with Senator Russ Feingold (D-Wisconsin), Representative Christopher Shays (R-Connecticut), and Representative Marty Meehan (D-Massachusetts) to close loopholes in the campaign finance system. Their efforts culminated in the first major campaign finance reform in over 30 years—the Bipartisan Campaign Reform Act (BCRA). Senator McCain argued that a ban on soft money was necessary to end corruption in U.S. politics.

In 2002, the BCRA became law. The major provisions of this law prohibited national party committees from accepting or spending soft money. This provision, particularly unpopular with the national party elites, sought to exercise control of so-called party-building contributions from labor unions, corporations, and individuals that had in fact been used for campaign electioneering purposes. It further limited state and local parties, telling them that they could not spend money in federal electioneering but instead could focus on get-out-the-vote and voter registration drives. National, state, and local parties also could not ask for or contribute money to nonprofit organizations (which in turn engage in advocacy without endorsing any candidate's election or directly subsidizing federal candidates' campaigns). The following hard money contribution limits were instated:

- individual contributions for House and Senate campaigns: $2,000, indexed to grow with inflation;

- total aggregate contribution limits for individuals: $95,000, with $37,500 to candidates and $57,500 to political parties and political action committees;
- political action committees: $5,000 per candidate per election with an additional $15,000 to a national party committee and $5,000 combined to state and local party committees.

Moreover, broadcast, cable, or satellite communications that target federal candidates for office or show their likeness in their district or state media outlets (known as electioneering communications) were banned from being issued or shown within 60 days of a general election or 30 days of a primary. In addition, unions and corporations were prohibited from directly contributing to electioneering communications and could only pay for such advertising through hard money or through PACs. Similarly, nonprofit organizations and 527s could only pay for these types of advertisements through PACs (Jost 2002, 974). Also included is a "millionaires' provision" that permits candidates facing independently wealthy opponents to accept up to $6,000 per election from individual contributors (Jost 2002, 976–977).

The BCRA has sparked not only heated debate and controversy but also a lot of litigation. One controversy—the growth of 527 organizations—put a lot of pressure on the Federal Election Commission (FEC). These 527s are political committees that raised and spent unlimited amounts of money on issue advertisement, polling, and get-out-the-vote drives. They claimed tax-exempt status under section 527 of the Internal Revenue Service Code and did not register as political committees with the FEC. These 527 groups, which existed prior to BCRA, did not have to identify donors, nor did they have to disclose how much they raised or how the money was spent. They grew by leaps and bounds after the BCRA's passage. Senator McCain and other campaign finance reformers pressured the FEC to do something about these groups. In the 2004 presidential election alone, the 527s spent nearly $400 million. Not only did they spend huge sums of money, but they have paid for attack ads in hundreds of television markets, and no one can pinpoint the sources of the funds due to the loophole that exempted them from the BCRA provisions (Munger 2006).

In addition to the controversy over 527s, many observers questioned whether it was constitutional to ban soft money spending by national political parties and to regulate funds raised by corporations, unions, and advocacy groups for electioneering purposes. Opponents argued that these restrictions violated free speech and limited political discourse. Shortly after BCRA was signed into law, U.S. Senator Mitch McConnell (R-Kentucky), then the Senate majority whip, took the Federal Election Commission to court, claiming that the BCRA unconstitutionally infringed on the free speech rights of advocacy groups such as the National Rifle Association. Initially in 2003, the U.S. Supreme Court in *McConnell v. Federal Election Commission* upheld the electioneering communications provisions and the soft money regulations (Ciglar 2005, 71). In 2003,

the Court favored the BCRA again by upholding the ban on contributions of incorporated nonprofit advocacy groups to federal candidates in *Federal Election Committee v. Beaumont.* At the same time, the Supreme Court demonstrated some early concerns with the BCRA provisions and struck down the prohibition on minors under the age of 18 from making political contributions and the requirement that political parties in a general election must choose between making independent or coordinated expenditures on a candidate's behalf (Sherman 2007).

As the Supreme Court's composition changed in 2005 (new Chief Justice John G. Roberts) and 2006 (new Associate Justice Samuel Alito), so too did its interpretation of the BCRA's issue-advocacy advertisement restrictions. This electioneering ad provision (i.e., issue-advocacy advertising) was among the most controversial, as illustrated in *Federal Election Commission v. Wisconsin Right to Life* (2007). More specifically, the Court held that part of the BCRA had been unconstitutionally applied by the FEC to an advertisement that the Wisconsin Right to Life groups sought to air before the 2004 election, and further stated that this advertisement was not an electioneering ad (Utter and Strickland 2008, 204). In this case, the Court's 5–4 ruling under the new Chief Justice, John G. Roberts, left doubts as to whether any part of the electioneering communications provision would survive given the broad exemption. The Court said that ads that truly engaged in a discussion of the issues could not be construed as urging for the support or defeat of a particular candidate. Another 5–4 U.S. Supreme Court decision in 2008, *Davis v. Federal Election Commission,* held that the millionaires' amendment unconstitutionally discriminated against candidates who spent their own money for purposes of getting elected by giving special fund-raising privileges to opponents (Bopp 2008).

Yet another major challenge to BCRA arose over whether Citizens United, a conservative nonprofit organization, could broadcast a documentary that the group produced in 2008 titled *Hillary: The Movie.* The Federal Election Commission enforced the BCRA electioneering provisions prohibiting nonprofits, corporations, and labor unions from expressly advocating for the election or defeat of a candidate for federal office (Welch 2010). In response, Citizens United took the FEC to court. In *Citizens United v. Federal Election Commission* (2010), the Supreme Court struck down a BCRA provision that barred corporations and labor unions from spending general treasury monies to advocate for or against the election of a candidate for federal office. In effect, this decision overturned part of the holding in *McConnell v. Federal Election Commission* (2003), which had upheld the electioneering provision. Many anticipate that the Citizens United ruling will result in a sharp increase in independent expenditures in future federal election campaigns (Jost 2010, 460, 463; Potter 2005, 56). Proponents of the electioneering provisions argue that this decision opens the floodgates and will allow corporations to pour money into campaigns, thus undermining the democratic process, while opponents still maintain that some groups that are able to pool resources, including labor unions and

advocacy health care reform advocacy groups, should be able to exercise their free speech rights ("High Court Hears" 2009).

New challenges to the BCRA are being led by David Keating, executive director of the Club for Growth—a political organization that promotes economic growth by advocating for limited government and low taxes. Keating has filed suit in federal court on behalf of SpeechNow.org that calls for the elimination of campaign contribution limits as well as reporting requirements for political action committees that make independent expenditures in federal elections. So far the U.S. Court of Appeals for the District of Columbia has struck down the contribution limits while upholding the reporting requirements. Chief Judge David Sentelle, speaking for the Court of Appeals, said that, given the Supreme Court's ruling in *Citizens United v. Federal Election Commission* (2010), it appears that the government has no interest in limiting the contributions of an independent expenditure group, because this does not create a risk of corrupting federal candidates for office or officeholders (Jost 2010, 460).

State Reform Efforts

In the post-FECA and post-BCRA eras, state governments have also approved campaign finance initiatives. Trying to reduce the role of money in politics, a number of these initiatives sharply limit the amount of campaign contributions, and some states and localities have adopted public financing of campaign measures, which supporters call Clean Elections, Clean Money. Numerous states have launched and won approval of campaign finance reform initiatives.

All states have reporting requirements, with two states mandating reports from political committees only and the rest requiring candidate and committee reports. The majority of states place candidate contribution limits on individuals (37 states), PACs (36 states), candidates themselves (41 states), candidate families (25 states), political parties (29 states), corporations (44 states), and labor unions (42 states). Half of the states completely prohibit anonymous contributions during legislative sessions. Cash contributions in campaigns are unlimited in 19 states, and other states allow varying amounts of cash donations or prohibit them completely.

From 1972 until 1996, 45 referenda and initiatives dealing with campaign and election reform were placed on state ballots, with 75 percent of these efforts occurring since 1985. During this period, the voters supported 36 reforms. These reforms included contribution limits, spending limits, and public financing measures (Hoover Institution 2004). Twelve of the 16 public financing measures were approved. From 1998 until 2006, 30 referenda and initiatives dealing with campaign and election reform were placed on state ballots, with 15 proposals securing passage. These reforms included new measures on public financing and campaign contribution limits. As of 2009, five more states passed "clean election laws" that provide public monies to candidates for political office if candidates accept spending limits, and over 20 states had some type of public financing for

select offices (Levinson 2009). In a January 2000 U.S. Supreme Court decision, *Nixon v. Shrink Missouri Government PAC,* the court reaffirmed *Buckley,* stating that state limits to campaign contributions were legal but limits on campaign spending were not. However, the campaign contribution limit could not be so extreme that it prevented the candidate from being able to gain notice or rendered campaign contributions pointless ("Campaign Finance Reform" 2008). The Court further explained this sentiment in *Randall v. Sorrell* (2006), when it struck down a Vermont law that placed strict caps on contributions and expenditures.

In the wake of the U.S. Supreme Court's rejection of campaign expenditure limits in *Buckley v. Valeo* (1976), many states have enacted public financing mechanisms for state elections. Overall, 15 states publicly finance candidates for various offices. The source of public funds for elective office varies, and some states—including Maine, Minnesota, Kentucky, and Rhode Island—rely on more than one source. Fifteen states use a voluntary tax checkoff, similar to the federal government's checkoff system, varying from $1 to $5. Ten states rely on a tax add-on, allowing taxpayers to either reduce their tax refund or increase their tax payment to finance campaigns. Seven states furnish direct legislative appropriations to fund public financing provisions. Eleven states allocate their monies to the taxpayer's designated political party, and three states use a distribution formula to divide the money equitably between the major political parties. The other states allocate money directly to statewide candidates or specify particular types of offices that qualify for public financing (Utter and Strickland 2008, 191–192).

Conclusion

Critics contend that campaign finance reform will never reduce the role of money in politics. They also contend that the BCRA makes it harder to challengers to mount effective campaigns against incumbents, thus dubbing BCRA the "Incumbent Protection Act" (Munger 2006). Public financing provisions enacted at the state level are being challenged in court for placing too many burdens on third-party candidates who try to qualify for public funds (Jost 2010, 464). Supporters of campaign finance reform argue that campaign finance laws are necessary to protect U.S. democracy from corruption (contribution limits), to provide citizens with information that allows them to make informed choices (reporting and disclosure laws), and to give candidates different paths for financing their election campaigns (public financing) (Wertheimer 2010, 473). Now the stage is set for the Supreme Court to decide whether campaign finance deregulation is necessary to protect free speech or to determine whether it should uphold some parts of the BCRA as a means of limiting the influence of wealthy individuals in U.S politics.

Further Reading

Bopp, James Jr., "Millionaires' Amendment Settles Two Key Analytical Issues." June 26, 2008. http://www.jamesmadisoncenter.org/pressreleases/release062608.html

"Campaign Finance Reform." New Rules Project of the Institute for Local Self-Reliance. 2008. http://www.newrules.org/governance/rules/campaign-finance-reform

Ciglar, Allan J., "Issue Advocacy Electioneering: The Role of Money and Organized Interests." In *Law and Politics: The Rules of the Game,* ed. Matthew J. Streb. Boulder, CO, and London: Lynne Rienner, 2005.

Cooper, Mary H., "Campaign Finance Reform." *CQ Researcher* (March 31, 2000): 257–280.

Corrado, Anthony, "Money and Politics: A History of Federal Campaign Finance Law." In *The New Campaign Finance Sourcebook,* ed. Anthony Corrado, Thomas E. Mann, Daniel R. Ortiz, and Trevor Potter. Washington, DC: Brookings Institution Press, 2005.

Farrar-Myers, Victoria A., "Campaign Finance: Reform, Representation, and the First Amendment." In *Law and Politics: The Rules of the Game,* ed. Matthew J. Streb. Boulder, CO, and London: Lynne Rienner, 2005.

Farrar-Myers, Victoria A., and Diana Dwyre, *Limits and Loopholes: The Quest for Money, Free Speech, and Fair Elections.* Washington, DC: CQ Press, 2008.

"High Court Hears 'Hillary: The Movie!' Campaign Finance Case." 2009. http://www.cnn.com/2009/POLITICS/09/09/scouts.campaign.finance

Hoover Institution, "Public Policy Inquiry: Campaign Finance." 2004. http://www.campaignfinancesite.org

Jost, Kenneth, "Campaign Finance Debates." *CQ Researcher* (May 28, 2010): 457–480.

Jost, Kenneth, "Campaign Finance Showdown." *CQ Researcher* (November 22, 2002): 969–992.

Levinson, Jessica A., *State Public Financing Charts.* Los Angeles: Center for Governmental Studies, 2009.

Munger, Michael, "Unintended Consequences 1, Good Intentions 0." Library of Economics and Liberty. January 9, 2006. http://www.econlib.org/library/Columns/y2006/Mungergoodintentions.html

Potter, Trevor, "The Current State of Campaign Finance Law." In *The New Campaign Finance Sourcebook,* ed. Anthony Corrado, Thomas E. Mann, Daniel R. Ortiz, and Trevor Potter. Washington, DC: Brookings Institution Press, 2005.

Sherman, Mark, "Justices' Scales May Be Tipping to the Right." *Houston Chronicle* (June 26, 2007): A1.

Utter, Glenn H., and Ruth Ann Strickland, *Campaign and Election Reform,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2008.

Welch, Matt, "Government Can't Squelch Free Speech." 2010. http://www.cnn.com/2010/OPINION/01/21/Welch.free.expression.campaign/index.html#cnnSTCText

Wertheimer, Fred, "Do Campaign Finance Laws Unduly Restrict Political Speech?" *CQ Researcher* (May 28, 2010): 473.

EXECUTIVE PAY

Carl R. Anderson and Michael Shally-Jensen

The U.S. media have made much out of executive pay recently, which reflects a widespread popular dissatisfaction with the way companies compensate their top officers.

Even as stock prices fell dramatically in the midst of the 2008–2009 financial crisis, for example, some chief executives' compensation remained stable or increased. Is it fair that, in 2009, following massive job cuts at companies such as Ford, Starbucks, Dow Chemical, Whirlpool, and American Express, the CEOs of these organizations received stock options valued at between $17 million (Whirlpool) and $53 million (Ford) (Schwartz 2010)? (Such options, of course, are only part of the standard executive compensation package, which also includes salary, cash bonuses, perks, and other forms of pay.) Is it right that, even as they were being investigated for selling shaky investments to consumers, Wall Street bankers were paying themselves $140 billion in compensation (Grocer and Luccheti 2010)? Can a connection be made between executive pay and company profitability? Or, perhaps more importantly, can a connection be made between executive pay and company stock price? When stock price fell at Home Depot and the CEO's pay increased, the company spokesperson made the argument that the best measure of CEO performance may be company earnings, even though that contradicts the company's proxy statement (Nocera 2006a, 2006b). Many have tried to find explanations for CEO pay but have found little evidence to support very high rates of compensation. This argument got the attention of lawmakers and the public following the government's bailout of various high-profile banks and other firms as part of the Troubled Assets Recovery Plan (TARP) of 2008. Even as some of the funds began to be paid back (with interest) to the government, the incoming Obama administration saw fit to appoint a "pay czar" to ensure that top executives at companies that made use of TARP funds did not receive any untoward cash payments or other unearned rewards.

A Brief Summary of the Basic Issues Involved

There are two distinct sides to this issue. One side asserts that CEOs, other top executives, and the stockholders share a common goal: to increase wealth. If the executives are enriched by enriching the shareholders, then there are no victims. In that regard, no identifiable problem exists, and the system is working well. This side further argues that, if the press makes note of executive pay abuses, those instances are isolated. Market forces, it is believed, will correct abuses. This argument is illustrated in the case of John Thain, former chairman and CEO of Merrill Lynch, who was forced to resign when it was revealed that, despite receiving $84 million in compensation in 2007, he (1) spent over $1 million in company money to make lavish renovations to his office and (2) more seriously, made nearly $4 billion in bonus payments to executives at Merrill Lynch, even while the company was being bailed out through a deal made between the federal government and Bank of America at the height of the financial crisis (*Frontline* 2009). Bad behavior, yes, but the system did what it was supposed to do, it is argued. (Never mind that Thain went on to head CIT Group.)

The other side of the argument is that top corporate executives in the United States are paid far beyond their worth. Their pay is based on factors other than performance,

HIGHEST PAID CEOs

The 10 highest paid CEOs in 2009 were as follows:

Rank	Name	Company	Total Compensation (in Millions of Dollars)	Change from 2008
1	Lawrence J. Ellison	Oracle	$84.5	0%
2	J. Raymond Elliott	Boston Scientific	$33.4	—
3	Ray R. Irani	Occidental Petroleum	$31.4	39%
4	Mark V. Hurd	Hewlett-Packard	$24.2	–29%
5	James T. Hackett	Anadarko Petroleum	$23.5	6%
6	Alan G. Lafley	Procter & Gamble	$23.5	–8%
7	William C. Weldon	Johnson & Johnson	$22.8	8%
8	Miles D. White	Abbott Laboratories	$21.9	–13%
9	Robert A. Iger	Walt Disney	$21.6	–58%
10	Samuel J. Palmisano	IBM	$21.2	1%

Source: "At the Top, Signs of a Slide." *New York Times* (April 10, 2010).

and certainly not on long-term performance. People on this side of the argument assert that boards (typically made up of CEOs from other companies) and the compensation committees of these boards recklessly pay high salaries to chief executives who seem to have more power than they themselves have or in order to influence the market value of CEO pay in general for selfish reasons.

A board of directors has many committees reporting to it. One example is the audit committee. This committee is charged with ensuring that the company's accounting controls are functioning properly and hold up to the scrutiny of an audit. Another example is the compensation committee. The compensation committee is charged with creating a compensation structure for the executives that is fair and beneficial to all parties concerned. Specifically, the compensation committee recommends to the board of directors the pay package for the CEO. This is especially important during the CEO recruitment phase. Furthermore, these committees and boards disguise these high salaries with complicated features and explanations. These complicated features and explanations are created by compensation consultants (often hired by CEOs) who propose handsome pay packages for the chief executive to present to the compensation committee.

Top Executives Are Not Overpaid

This side of the argument is based on the premise that top executives are paid well, but not overpaid. Many people see CEO pay packages but do not look further to see that a

CEO's pay is not the whole story. What are the factors that might support a high executive compensation package?

Only Extreme Cases of Overpay Hit the Press

Proponents of the argument that top executives are not overpaid state that most of the complaints about executive compensation center around extreme cases of overpay, and such cases blind us to the fact that the majority of executives are paid fairly.

One example of this is the case of Lee Raymond, former head of Exxon Mobile. When he retired from the company in 2006, the price of gasoline at the pump was high, $3 per gallon, much to the consternation of consumers. Yet Exxon Mobile rewarded Raymond with a record retirement package—a "golden parachute," as it is known—to the tune of $400 million. The combination of exorbitant CEO pay and painfully high gas prices rubbed most observers the wrong way. A similar situation occurred in the case of Robert Nardelli of Home Depot. When Nardelli retired in 2007 with a pay package worth $210 million, the company he headed had just gone through several straight years of relatively poor performance. People wanted to know why the chief executive received such an exceptional payout.

And yet these are just the extreme cases, say the proponents of substantial executive pay. True, they say, that at the peak of the trend toward higher pay around the turn of the millennium, some CEOs were earning up to 320 times the earnings of the average shop floor worker; however, if the calculation is adjusted by eliminating the extremes and looking at median CEO pay rather than mean pay, the same figure falls by nearly two-thirds, to "only" 120 times. The mean annual CEO pay in 2000–2003, for example, was $8.5 million, while the median was $4.1 million (Carr 2007). In any case, these figures are well below the nine-figure sums that command the attention of the media on occasion. They are also well below the sums made by many top Wall Street traders and hedge fund managers. In 2006, for example, traders could handily bring home bonuses of $40 million to $50 million, while top hedge fund managers could earn in the billions ("The Story of Pay" 2007).

Good CEOs Cost More than Average CEOs

We must now examine a basic theory of economics: you get what you pay for. If a chief executive commands a handsome pay package, then she must have proven to the board of directors that she is worth it.

The board of directors represents the shareholders of the company. The CEO reports to and works for the board of directors. It is through the board that the shareholders can voice their opinions and make their desires known. It is the board's responsibility to act on behalf of the shareholders in carrying out their wishes to management. Management starts with the CEO, who is then responsible for hiring managers to act as agents for the owners (i.e., the shareholders). It is in the best interest of each board member to represent

the shareholders to the best of his ability. Board members are elected by the shareholders. If a board member falls out of favor with the shareholders, then he stands the chance of losing his seat on the board. Therefore, if members of the board make a mistake in hiring a chief executive, those members cannot make too many more mistakes, or they will lose their seats on the board.

A basic theory of finance is that the goal of a firm (or company) is to maximize shareholder wealth. Therefore, shareholders look to the board of directors to maximize their wealth. One of the best ways to maximize shareholder wealth is to hire good people, and the most important person to hire is the CEO. Since we expect that good chief executives cost more than average chief executives, the board is certainly working in the shareholders' interest by hiring the most qualified CEO, and that will cost more money. But all interests are served because it is the job of the CEO to see that shareholder wealth is maximized. If you reduce executive compensation, the most talented CEOs will go elsewhere and you risk seeing the value of your shares decline.

CEOs Are Paid to Participate in the Risk with Shareholders

Another tenet of economic theory is that high risk relates to high reward. In a nutshell, this means that to return high rewards to yourself or those to whom you report, you will have to take risks.

As mentioned earlier, CEOs are paid to maximize shareholder wealth. This does not mean simply increasing shareholder wealth during the CEO's time in office. Shareholders' investment in the company is not permanent. Shareholders can sell their shares and invest in another company with relative ease. In fact, it is in the shareholders' interest to invest their money in the best investment they can find. It is not in the company's best interest to have shareholders who want to sell their shares, because that will decrease the share price. A CEO must not only try to increase the company's share price and stock dividends (i.e., maximizing shareholder wealth), but he must do so relative to investments competing for the shareholders' capital.

To maximize shareholder wealth, a CEO must take risks. The CEO is not only putting the shareholders at risk; she is also putting her job and her private fortune at risk. Her private fortune is at risk because she most likely has a large investment in company stock or has the right to buy a large block of company stock (i.e., employee stock options), and she is definitely putting her salary at risk. She is therefore participating in risk with the shareholders, and that is what she is paid to do. If the risks that the CEO takes fail, no one suffers more than the CEO. In conclusion, by acting in her own best interest, she is also acting in the best interest of the shareholders.

Top Executives Are Overpaid

Proponents of this side of the argument assert that executive pay packages not only are excessive but tend to be justified by arguments not related to performance. Proponents

on this side also assert that CEOs may be paid well even if a company's performance is declining.

Compensation Committees Keep CEO Pay Artificially High

As mentioned earlier, good CEOs cost more than average CEOs. When the board is considering an offer of employment to a prospective CEO, the board relies on recommendations from the compensation committee. In turn, the compensation committee may hire a compensation consultant to put together a compensation package. This package will be submitted to the board to accompany its offer of employment to the prospective CEO. Additional compensation may also be negotiated with the candidate. The better the candidate, the more negotiating room is available. Compensation consultants are also hired to review existing compensation packages for CEOs.

The process described above can have inherent problems. In the case of making an offer to a CEO candidate, compensation committees often have biases toward a CEO candidate because the board has already expressed its interest in hiring that candidate. Additionally, the board has gone to great expense to find a CEO candidate that it feels is suitable for the job. Good CEO candidates are very difficult to find. As a result, the committee would be at fault if the candidate rejected the offer because the compensation committee's pay package was not satisfactory to the candidate. Sometimes the compensation committee wants to offer an above-average package for the future CEO of its company. This issue tends to increase the committee's pay recommendation. If every CEO is paid above average, then the pay packages are ever increasing. In the case of a compensation consultant reviewing the existing pay package of a CEO, the CEO usually hires the consultant. The CEO then reviews the recommendation. If it is satisfactory to him, he presents it to the board of directors. As a consequence, the CEO will only hire a compensation consultant that will create a very handsome package for him to use as support for an increase in his pay.

The result of this is that CEOs can easily be paid far beyond their worth simply because of the conflicts of interest discussed above. Prior to 2003, in fact, when the rules were changed, chief executives usually sat on the nominating committees that picked potential boards of directors. Clearly, a more favorable board, including a more favorable compensation committee, stood to be elected under those circumstances.

Overpaying a CEO May Indicate Bigger Problems

Many problems in business can be solved with money. But if the money dries up, the problems may reappear twofold. Some have argued that the overcompensation of chief executives is a by-product of bigger problems (Chang 2005). The company can defer the need to address concerns with employees by simply increasing their pay. This is especially true with the highest-ranking employee, the CEO. Overpayment may be indicative of a badly functioning company, a changing product market, lack of resources, or poor corporate governance (Annett 2006).

The issue of paying CEOs and other executives for reasons other than performance has been such a problem that the federal government stepped into the fray with the enactment of the Revenue Reconciliation Act of 1993 (Thomas 2006). This law includes a provision that eliminates the corporate tax deduction for publicly traded companies for senior executive pay in excess of $1 million annually if the pay package is not performance based. The definition of performance in this law is broad and could be achieved even by a poorly performing company and CEO. Although companies must pay attention to compensation packages, if for no other reason than to comply with this law, such a loosely worded regulation is unlikely to create a roadblock to excessive CEO pay.

Similarly, in 2005, as a result of complaints by shareholders, changes in financial disclosure rules were instituted that required companies to count executive stock options as part of a company's operating expenses. Even now, however, such options are often strategically timed or backdated (i.e., listed after the date on which they were issued) by executives in order to maintain personal incomes while avoiding the need to report higher expenses to shareholders ("Executives' Large Pay Packets" 2007). The Securities and Exchange Commission has ruled that backdating is not in itself illegal but that it can be part of fraudulent actions in specific cases and so should be scrutinized.

Tenure, Power, and "Say on Pay"

Many employees have been at their present employer for many years. Those years of experience enable employees to know how things work and who to go to to get things done. This is especially true for high-ranking employees. Longevity at one employer, also known as tenure, is therefore very beneficial to senior executives.

Companies tend to pay top executives with long tenure more than top executives with less tenure. This holds true even if the less-tenured executive has more relevant experience. This also holds true regardless of performance. How can this be explained? Some conclude that pay is driven by power, and power is determined by tenure. Seniority is considered a useful variable when determining pay across levels in most organizations. We tend to believe that those with experience perform better. In some cases, this could be true, but tenure does not necessarily correlate with company performance.

As a check on the effects of tenure, there has developed in recent years a movement of sorts known as "say on pay," in which shareholders expect to have a yes or no vote on the compensation packages offered to top executives. In the beginning, these votes were nonbinding, but more recently they have become binding decisions that boards must act upon. In May 2008, for example, Aflac shareholders approved $75 million in compensation for the company's CEO, Daniel Amos, for delivering exceptional performance ("Shareholders Weigh In" 2008). The opposite occurred two years later in the cases of chief executives from Occidental Petroleum (Ray Irani) and Motorola (Sanjay Jha); shareholders at these companies rejected the proposed CEO pay packages ("Nay on Pay" 2010). Say on pay looks like it could be the wave of the future.

Concentration of Stock Ownership

In large companies, CEOs tend not to be paid above average if there is an individual stockholder with a significant number of shares. This is because stock voting power is concentrated in that one stockholder. That one stockholder can effect change and control situations without having to form a consensus with other shareholders. Forming a consensus is time consuming and replete with compromise, both of which do not lend themselves to swift and targeted corporate governance. Therefore, this inability to control CEO pay through stock concentration gives compensation committees and boards of directors more freedom to approve above-average CEO pay packages.

In small companies, a lack of stock concentration does not lead to the overpayment of CEOs.

Conclusion

In sum, one could find enough information in this controversy to support either view. Many people are trying to understand why top executives are paid so much, and others are trying to understand what all the fuss is about. Much research has been done to find a link between pay and performance, but only a limited connection has been made between compensation packages and performance. One could see how quickly CEO pay could get out of hand, especially in a cash-rich company, if corporate governance is lacking. A well-crafted, balanced executive compensation package would be only one result of good corporate governance. To conclude, then, we ask again: are CEOs overpaid? Many examples of pay for factors other than performance have been explored here. In those cases, one would have to conclude that, yes, many CEOs are overpaid.

See also **Corporate Governance; Corporate Tax Shelters; Financial Regulation; Glass Ceiling**

Further Reading

Annett, Tim, "Great Divide: CEO and Worker Pay." *Wall Street Journal* (May 12, 2006). http://online.wsj.com/public/article/sb114719841354447998-CKSOvdXu2TSMc6ZVSwNaA3zCMtw_20060611.html

"At the Top, Signs of a Slide." *New York Times* (April 10, 2010).

Balsam, Steven, *An Introduction to Executive Compensation.* Burlington, MA: Academic Press, 2002.

Carr, Edward, "In the Money." *Economist* (January 18, 2007).

Chang, Helen K., *CEO Skill and Excessive Pay: A Breakdown in Corporate Governance?* 2005. http://www.gsb.stanford.edu/news/research/compensation_daines_ceopay.shtml

Crystal, Graef S., *In Search of Excess: The Overcompensation of American Executives.* New York: W. W. Norton.

Ellig, Bruce R., *The Complete Guide to Executive Compensation,* 2d ed. New York: McGraw-Hill, 2007.

"Executives' Large Pay Packets Cannot Be Blamed on Poor Governance." *Economist* (January 18, 2007).

Frontline: Breaking the Bank. Documentary. Michael Kirk, dir. Boston: WGBH/Frontline, 2009.

Grocer, Stephen, and Aaron Luccheti, "Traders Beat Wall Street CEOs in Pay." *Wall Street Journal* (April 6, 2010).

Kay, Ira T., and Steven Van Putten, *Myths and Realities of Executive Pay.* New York: Cambridge University Press, 2007.

Kolb, Robert W., ed., *The Ethics of Executive Compensation.* Malden, MA: Blackwell, 2006.

Leonard, Devin, "Bargains in the Boardroom?" *New York Times* (April 4, 2010): B1, B7.

"Nay on Pay." *Economist* (May 15, 2010).

Nocera, Joe, "The Board Wore Chicken Suits." *New York Times* (May 27, 2006). http://select.nytimes.com/2006/05/27/business/27nocera.html

Nocera, Joe, "A Column That Needs No Introduction." *New York Times* (June 3, 2006): C1.

Schwartz, Nelson D., "Striking Gold in Stock Options." *New York Times* (April 4, 2010): B1, B9.

"Shareholders Weigh in on Executive Compensation." *Economist* (May 20, 2008).

"The Story of Pay Is Largely the Story of Share Options." *Economist* (January 18, 2007).

Thomas, Landon, Jr., "The Winding Road to Grasso's Huge Payday." *New York Times* (June 25, 2006). http://www.nytimes.com/2006/06/25/business/yourmoney/25grasso.html

F

FINANCIAL REGULATION

Scott E. Hein

Financial regulations can be viewed as rules or restrictions that subject financial transactions or entities to certain guidelines or requirements, generally aimed at maintaining the integrity of the financial system, at least in the eyes of those who make these regulations. Financial regulations can be made by either a government or nongovernment entity, and the rules and guidelines are monitored by financial regulators. Today, however, the vast majority of financial regulations are put in place by government entities rather than nongovernment or self-regulating entities.

The basic purpose of financial regulation in the United States can be viewed as protecting persons and property, particularly from being taken by force or fraud, and as providing enhanced consumer confidence in financial dealings. There is near universal agreement that there is a role to be played by a "financial constable" to assure that such abuses are prevented.

Financial regulations come with their costs, sometimes explicit and sometimes implicit opportunity costs, imposed on the regulated industry. Another broad concern about the cost of financial regulation relates to the notion of *regulatory capture,* where there exists a cozy, crony relationship between the regulator and the parties being regulated. In this case, the government fails to establish a regulatory state that operates efficiently. But financial regulations also may bring benefits to financial participants. These benefits generally consist of improving participant confidence and convenience

as well as circumventing other financial agents' abilities to accumulate and exercise market power to the detriment of others.

Government Financial Regulations and Regulators

Financial regulations in the United States are generally established by lawmakers, and these same lawmakers frequently create financial regulatory agencies to see that the regulations are adhered to through supervision. In the United States, federal lawmakers make laws that are passed by the U.S. Congress and signed into law by the president. In addition, state lawmakers make state laws that are passed by state congressional offices and signed into law by the governor. At both the federal and state levels, regulatory agencies are created to make sure the laws are enforced.

The most heavily regulated area of the U.S. financial system is the banking industry. It has long been recognized in the United States that banks, which accept deposits and make loans, are important in the shaping of financial activities and economic growth. Broadly, government regulations of banks (and other depository institutions) do each of the following: (1) restrict competition, (2) specify what assets a bank can hold, (3) define how bank capital is measured and require banks to hold a minimum level of bank capital, and (4) require that the public be informed about banks' financial conditions.

Since 1863, the United States has had a *dual banking system* with both state-chartered banks and nationally chartered banks. This means that, to even open a bank, one needs to obtain regulatory approval. The National Currency Act of 1863 created the Office of the Comptroller of the Currency to charter, regulate, and supervise all national banks. Coexisting with this federal bank regulator, all states also have their own state departments of banking, which charter, regulate, and supervise state banks, serving as state banking regulators. Thus, today we have both federal and state banking regulators in our financial system.

The Constantly Evolving and Growing Nature of Financial Regulation

While the purpose of financial regulation is simple, the experience in the United States is that financial regulation is both increasing and becoming increasingly complex over time. There are a number of reasons for the growth and increased complexity of financial regulation. First, financial services are becoming increasingly important in the United States. Many individuals have in the past provided their own financial services, such as financial intermediation of lending to family members or self-insuring potential losses, but now find it more advantageous to use a financial agent. Second, there is a general recognition that it is natural for private entities to seek ways around rules that limited profit potential. Edward Kane (1988) has referred to the process as a *regulatory dialectic.* The process starts with new regulation, followed by avoidance of this regulation, as economic agents seek to avoid costly aspects of the regulations, only to be followed by reregulation. Indeed, the term *reregulation* better characterizes most of the evolution of

CREDIT DEFAULT SWAPS

A recent example of a financial innovation is a *credit default swap.* These instruments were not around 20 or 30 years ago, but they became important in the financial crisis of 2008–2009. Credit default swaps can be viewed as insurance products, insuring the holder of the insurance product against default on a particular bond. Suppose you are a large financial institution that owns many General Electric (GE) bonds, for example. If GE were to default on these bonds, then you, as an investor, would lose out financially. To protect yourself against this possibility, you could buy a credit default swap on GE bonds, for which you would pay a premium. If GE never defaults, you, as the credit default swap holder, get nothing in exchange for your premium. On the other hand, if GE defaults, the insurer or underwriter of the insurance product would compensate you for your loss.

The example of a credit default swap is interesting because, although the product was classified as an insurance product above, the insurance regulators did not deem it to be an insurance product. Rather, the insurance regulators saw the instrument to be another example of a *derivative,* an instrument that derives is value from another underlying instrument. Indeed, *swaps,* such as interest rate swaps, are generally thought of as derivatives, not insurance products. But the central point is that credit default swaps, since they were new financial innovations, escaped any real regulatory oversight. Since the insurance firm AIG's financial problems—which came to light during the financial crisis—are generally understood to stem from its underwriting of credit default swaps, it is now felt that someone should have been regulating this financial activity.

financial regulations than the term *deregulation.* Although the term deregulation, meaning the removal of existing regulation, is frequently used, the term deregulation rarely applies, and it would be better to refer to reregulation.

Another reason for the growth in financial regulations stems from *financial innovation.* Financial innovation can be thought of as a new financial product introduced as a result of technological advances or to satisfy some previously unknown demand.

A Broad Chronology of the Evolution of Federal Financial Regulation

In addition to the above reasons for increased financial regulation, each successive financial and economic crisis seems to spawn new financial regulators and regulations put in place by the federal government. For example, it is widely understood that the Federal Reserve System, a banking regulator, was created in 1913 in response to earlier banking panics in the United States. The Federal Reserve Act, among other things, authorized the creation of the country's third central bank, the Federal Reserve, to lend to banks that were solvent but needed liquidity. This lending activity is done through the Federal Reserve's discount window, and the U.S. central bank is referred to as a *lender*

of last resort. The Federal Reserve was further authorized to levy *reserve requirements* on member commercial banks, requiring banks to hold a fraction of their deposits in certain liquid forms. The Federal Reserve was further charged with the supervision and examination of banks in the United States.

The McFadden Act was passed by the U.S. Congress in 1927, giving individual states the authority to limit bank branches located in their state. This limitation on branches also applied to national banks located within the state's borders.

Regulations Spawned by the Great Depression

Even with the Federal Reserve in place—or, as many charge (see Friedman and Schwartz 1963), because of the Federal Reserve's poor monetary policies in place—the United States experienced the Great Depression in the early 1930s. As suggested by the thesis that financial and economic crises spawn new financial regulation and regulators, the U.S. Congress imposed a new broad array of financial regulators and regulations not seen before.

Legislation in the Great Depression era, generally referred to as Glass-Steagall after the legislators who proposed the legislation, prevented the commingling of commercial banking (accepting deposits and making loans), investment banking (aiding in the insurance of securities of all types), and insurance (providing either property and causality or life insurance products) from being administered under one single business. Prior to this legislation, financial institutions were much freer in their abilities to offer all such financial services under one corporate structure.

In addition, the Federal Deposit Insurance Corporation (FDIC), another banking regulator, was established by Glass-Steagall. The FDIC was created to offer depositors federal insurance for limited amounts of bank deposits. The legislation also granted the FDIC the ability to supervise and examine banks that offer insured deposits and granted the FDIC the resolution authority to close banks that it deemed as having failed financially.

The Great Depression further led the U.S. Congress to put into law legislation that created the Securities Exchange Commission (SEC). The Securities Act of 1933, together with the Securities Exchange Act of 1934, which created the SEC, was designed to restore investor confidence in capital markets by providing investors and the markets with more reliable information and clear rules of honest dealing. Thinking that abuses in securities markets occurred during the Great Depression that made the economic decline worse, Congress added a new financial constable overseeing securities transactions.

Post–Great Depression Regulation

The economic struggles in the early 1970s led the U.S. Congress to remove limitations on interest rates that banks and other depository institutions could pay on deposits. For years, Regulation Q limited the maximum rate of interest that could be paid on

various deposit accounts. These limits were eliminated by Congress in an effort to allow depository institutions to better compete for funds in a rising interest rate environment. The financial and economic difficulties in the United States in the late 1970s and early 1980s, as the nation experienced relatively high inflation, caused Congress to expand this reserve requirement to all commercial banks as well as thrift institutions and credit unions.

The significant numbers of failures for both commercial banks and thrift institutions in the late 1980s and early 1990s led to more regulatory changes. In this case, the term *deregulation* is appropriate. The Interstate Banking and Branching Efficiency Act of 1994 removed many of the limitations placed on depository institutions regarding interstate banking and branching, opening up the United States for the first time to nationwide banking and reversing the McFadden Act.

The late 1990s, while relatively tranquil in terms of economic and financial issues, ushered in another instance of deregulation by reversing the Glass-Steagall Act. In 1999, the Gramm-Leach-Bliley Act allowed financial intermediaries under one corporate structure, the financial holding company, to engage in commercial banking, investment banking, and insurance activities.

Even the terrorist attacks of September 11, 2001, led to banking regulations. In particular, the U.S. Congress amended the Bank Secrecy Act of 1970, with several anti–money laundering provisions and enhanced surveillance procedures under the USA Patriot Act of 2001.

As a response to the financial crisis of 2008–2009, Congress is working on legislation that proposes significant changes in financial regulatory reform. The thinking appears to suggest that, although financial regulations did not prevent the financial crisis, a fine-tuning of these regulations will indeed prevent future crises.

Other Financial Intermediary Regulators

The U.S. financial system includes other financial intermediaries aside from banks. Some of these are other depository institutions like credit unions and thrift institutions. Others provide other financial services like insurance companies and mutual funds.

Regulation of Credit Unions and Thrift Institutions

The United States has other financial institutions that also can be viewed as depository institutions, like *credit unions* and *thrift institutions.* Like banks, these institutions accept "deposit-like" funds and lend these funds out to others. Also like banks, these institutions can be chartered at either the state level or at the federal level. While credit unions and thrifts can be chartered by their individual states, both today generally offer federal deposit insurance. The National Credit Union Administration charters federal credit unions and offers deposit insurance to both state and federal credit unions. The FDIC offers federal deposit insurance to savings and loan associations,

CREDIT RATING AGENCIES

The credit rating agencies such as Fitch Ratings, Moody's Investors Service Inc., and Standard and Poor's Ratings Services, are not generally deemed as regulatory agencies. Although they play an important role in evaluating the default risk of debt securities issued in the United States, they do not have regulations that they monitor. However, credit rating agencies play an important role in the financial system by grading bonds. In many cases, the rating given a particular security will determine whether a regulated investor may buy a given security. Many commentators blame credit rating agencies' lax grading for making the 2008–2009 financial crisis worse (see Kaufman 2010). Because of the critical role of rating agencies in the U.S. financial system, the SEC does serve as the regulator of these agencies, deciding which firms can be nationally recognized rating organizations and which firms cannot be. The U.S. Congress and the SEC are weighing whether it would be wise to change the compensation structure for the credit rating agencies from the current system, in which the issuer of the security pays for the rating, to a system where investors or others should pay for such services.

mutual savings banks, and other thrift institutions. The Office of Thrift Supervision charters and regulates national thrift institutions.

Regulations imposed on credit unions and thrift institutions entail restrictions on the types of loans they can make or the types of investments undertaken. Credit unions generally make loans to consumers and are limited to some extent on the amount of loans they make to businesses. Thrifts, on the other hand, have historically been encouraged to make residential mortgage-related loans. As such, they are generally restricted in the amounts of other types of loans—whether consumer or business—they can make. In addition to having the types of loan activities restricted, credit unions and thrifts are generally restricted in the types of securities they can invest in. Both are not allowed to make investments in common stock of other corporations and are limited in terms of the default risk their bonds can be subject to, generally not being allowed to invest in junk bonds or similarly low-rated debt instruments, as determined by credit rating agencies.

One key aspect of the regulations regarding credit unions in comparison to banks and thrifts relates to their tax treatment. Credit unions are nonprofit financial intermediaries and, as such, pay no income tax. Commercial banks and most thrift institutions (other than mutual savings banks) are for-profit institutions and thus do not get the tax exemption benefits granted to credit unions.

Regulation of Other Financial Intermediaries

In addition to regulating banks and other depository institutions, most states regulate other financial intermediaries such as insurance providers and securities firms. Most insurance activities offered in the United States are regulated at the state level, as state

legislators have chosen to create most insurance regulations. Indeed, most states have created either state departments of insurance or state insurance commissions to ensure that the laws passed by the state are enforced and adhered to. Although there is a National Association of Insurance Commissioners, this is simply an organization of state insurance regulators. There is little federal regulation of insurance although the health care insurance legislation signed by President Barack Obama mandating health insurance coverage suggests that this is changing.

Because mutual funds and money market mutual funds generally invest in securities, it is only natural that their activities are regulated by the SEC as well. As an example of such regulation, investors in mutual funds must be provided with a *prospectus* from the mutual fund, detailing the types of investments purchased by the fund, the rules that guide its investment choices, as well as the financial risks to investing in the fund.

Financial Market Regulators

Most states also have passed laws dealing with securities transactions. Today, most states have state securities boards, commissions, or departments to regulate the securities industry in their state and make sure that the state laws are being met. The primary mission of these entities is to protect investors—the buyers of securities—in their states.

In the 19th century, many states also imposed *usury law,* although there was much variation across states. These laws placed a maximum upper limit on interest rates charged in individual states by all lenders. New evidence (see Benmelech and Moskowitz 2010) indicates that these laws came with broad societal costs, such as less credit availability and slower economic growth, but that wealthy political incumbents benefited by a lower cost of capital. Today, only a few states impose usury laws that have any meaningful effect on credit transactions.

The Securities and Exchange Commission

Federal regulations pertaining to the securities industry did not become important in the United States until the establishment of the Securities Exchange Commission in 1934. The SEC is charged with maintaining fair, efficient, and orderly markets by regulating market participants in the securities industry. To the extent that securities transactions are becoming increasingly important in the U.S. financial system, the SEC's role as regulator is also growing over time. The SEC regulates issuers of securities and tells them what types of securities they can issue and the information that must be provided by them to investors—for example, in the form of prospectus and most recently in the Sarbanes-Oxley Act. It also regulates investors and monitors what investors are doing, making sure that investors do not break *insider trading laws* that preclude investors from availing themselves of insider information that is not publicly known and use that to their advantage in trading. To the extent that mutual funds, including money market

mutual funds, invest primarily in financial securities, the SEC regulates the mutual fund industry, requiring that mutual funds let investors know the risks and returns investors can anticipate, providing this information in the form of a prospectus. The forms of mutual funds known as hedge funds traditionally have faced less stringent regulation, although under the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act the reporting (or disclosure) requirements of such funds have increased.

Self-Regulating Organizations

In addition to the numerous governmental entities involved in regulating the U.S. financial system are many *self-regulating organizations.* These include the Financial Industry Regulatory Authority; the Municipal Securities Rulemaking Board; and stock and other financial instrument exchanges and clearinghouses, such as the New York Stock Exchange and the Chicago Mercantile Exchange, to name the largest, most well-known exchanges.

The Commodity Futures Trading Commission (CFTC)

Futures contracts are instruments that allow market participants to buy and sell items, including financial assets, for future delivery but at a price set today. These contracts obligate both parties to fulfill commitments to make or accept delivery. Option contracts, on the other hand, only commit one party, called the writer of the contract, to a particular action, while the buyer of the contract has the option or choice to take a certain action or not. Futures contracts have been traded in the United States for over 150 years, and option contracts have been around for quite some time as well. In 1974, the U.S. Congress passed the Commodity Futures Trading Commission Act, which established the CFTC as the key federal regulator of both futures and options trading activities in the United States. The mission of the CFTC is to protect market participants in futures and options trading from fraud, manipulation, and other such abusive practices and to foster financially sound markets.

Conclusion

Financial regulation in the United States is in a constant state of flux but seems to change the most in response to economic and financial crises. The financial crisis of 2008–2009 does not appear to be an exception to this rule. The U.S. Congress recently passed, and President Obama signed into law, the Dodd-Frank Wall Street Reform and Consumer Protection Act, legislation that will significantly alter the financial regulatory landscape going forward. Indeed, the mind-set in Washington, DC, following the financial crisis is that it was generally a lack of federal financial regulation that led to the crisis. Even with the 2010 act in place, much debate continues to take place as to how the new rules are to be applied by regulators and to what extent they will be shaped by such regulatory actions.

Included in the Dodd-Frank Act is a provision to establish a new Bureau of Consumer Financial Protection that is charged with making sure that consumers are not taken advantage of by "unscrupulous lenders," such as putting home buyers into mortgage loans that are not in the consumer's best interest. While numerous financial regulators were charged with such responsibilities in the past, this new regulator will have this as its chief focus. The Dodd-Frank Act also includes new laws and regulations dealing with the very largest financial institutions in the country that are deemed "too big to fail." The financial crisis has shown evidence of rippling effects throughout the financial system when a large financial institution, like Lehman Brothers, fails. To prevent such rippling effects, many large, systemically important financial institutions were provided federal aid during the crisis to prevent their financial failure. While the new legislation does address many aspects of the too-big-to-fail issue, it does not appear to settle the issue of the optimal method of dealing with large, systemically important institutions that are on the brink of failure. The act also includes some new regulation on derivatives other than futures and option contracts, such as swap agreements.

While the U.S. political leadership today seems to believe that the next financial crisis will be prevented by these new regulatory reforms, a reading of U.S. financial history suggests that future crises are still likely to occur in the not-too-distant future.

See also **Bank Bailouts; Consumer Credit and Household Debt; Corporate Governance; Corporate Tax Shelters; Corporate Crime (vol. 2)**

Further Reading

Benmelech, Efraim, and Tobias Moskowitz, "The Political Economy of Financial Regulation: Evidence from U.S. State Usury Laws in the 19th Century." *Journal of Finance* 65, no. 3 (June 2010): 1029–1073.

Bullard, James, Christopher J. Neely, and David C. Wheelock, "Systemic Risk and the Financial Crisis: A Primer." *Federal Reserve Bank of St. Louis Review* (September/October 2009): 403–417.

Cecchetti, Stephen G., *Money, Banking, and Financial Markets,* 2d ed. Boston: McGraw-Hill Irwin, 2007.

Friedman, Milton, and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960.* Princeton, NJ: Princeton University Press, 1963.

Kane, Edward J., "Interaction of Financial and Regulatory Innovation." *American Economic Review* 78, no. 2 (May 1988): 328–334.

Kaufman, George, "The Financial Turmoil of 2007–09: Sinners and Their Sins." Networks Financial Institute at Indiana State University, March 2010, 2010-PB-01.

NYU Stern Working Group on Financial Reform, "Real-time Recommendations for Financial Reform." December 16, 2009. http://govtpolicyrecs.stern.nyu.edu/home.html

Stigler, George, "The Theory of Economic Regulation." *Bell Journal of Economics* 1 (Spring 1991): 3–21.

FOREIGN DIRECT INVESTMENT

Michael L. Walden

Much has been made about U.S. companies putting jobs and factories in foreign countries. This phenomenon, called outsourcing, has stirred concerns about the United States' competitiveness and the ability of U.S. workers to go head-to-head with foreign workers, many of whom are paid much less.

But perhaps just as important, yet not as thoroughly covered in the popular press, is the opposite flow of money and jobs. This occurs when foreign companies and foreign investors put funds into the U.S. economy. The money is used to build factories and stores or buy financial investments. With the inflow of money usually come jobs and incomes. This process is called foreign direct investment (FDI) and is popularly termed insourcing.

The Size and Origin of Foreign Direct Investment

Foreign direct investment can happen from any country. People and companies from any country can invest in (almost) any other country. For example, there is FDI in China, France, Poland, and Chile. Of course, there is also FDI in the United States, which will be the focus of this entry.

So when we talk about the amount of money foreigners invest in the United States, are we talking about a small or large amount? Figure 1 gives the answer. The dollar amounts in different years in the figure have been adjusted so they have the same purchasing power; therefore, they are directly comparable. As can be seen, FDI in the United States is substantial, at $2.3 trillion in 2008. It has also increased substantially in recent years, rising over 500 percent from 1990 to 2008.

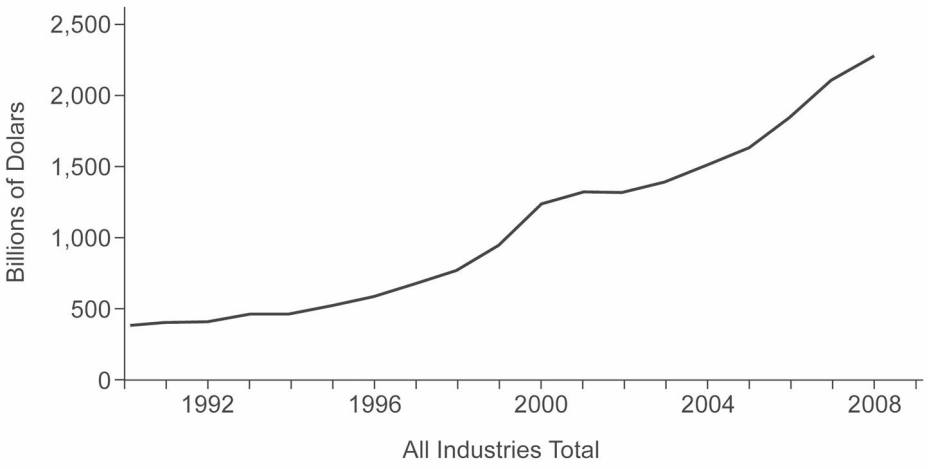


Figure 1. Foreign direct investment in the United States (2008 dollars in billions) (Bureau of Economic Analysis, www.bea.gov)

TABLE 1. Leading Countries of Origin for Foreign Direct Investment in the United States (1990 and 2008)

Country	Share of Total Foreign Direct Investment in 1990 (%)	Share of Total Foreign Direct Investment in 2008 (%)
United Kingdom	25.0	19.9
Japan	21.0	11.4
Netherlands	16.3	11.4
Germany	7.1	9.3
Switzerland	4.5	7.3
France	4.7	7.2
Luxembourg		5.0
Australia	1.7	2.8

Source: Bureau of Economic Analysis. http://www.bea.gov

Who is behind these investments? That information is given in Table 1, which shows FDI in the United States according to the top countries of origin in 1990 and 2008. In both years, the leading investor countries were all in Europe, of European origin (Australia), or Japan. The biggest changes from 1990 to 2008 have been a reduction in the shares of the two leading countries, the United Kingdom (Great Britain) and Japan, and the replacement of Australia in 1990 with Luxembourg in 2008 as a leading investor country.

Why Do Foreigners Invest in the United States?

What motivates foreigners to invest in the United States, and should we be pleased or worried by the interest of foreign investors? These are important questions that help determine how we feel about FDI.

On one level, we should not be surprised that foreigners want to invest in the United States. The United States is the world's largest economy by far, the biggest in aggregate wealth, and has a stable political system that respects the rights of investors. The U.S. economy has more than doubled in size in the past 20 years (1990–2010), and its population is among the fastest growing for developed countries. Against this backdrop, any investor would want part of the action in the United States.

Recently, there has been a demographic reason for FDI in the United States. Compared to Europe, Japan, and soon China, the United States is a relatively young country with a growing population. Europe, Japan, and China are aging rapidly, and their populations may even decline in the decades ahead. Older people tend to be savers and investors so that they can ensure an income in their later years. Younger people, by contrast, are usually borrowers so that they can supplement their income to purchase the homes, cars, appliances, and other assets needed for their lives. Therefore, it makes

sense that countries with older populations will lend—which is another way of looking at investing—to countries with a higher proportion of younger people. Indeed, this is exactly the pattern shown in Table 1. The greatest source of FDI in the United States is from the aging countries of Europe plus Japan.

Last, there is a practical reason why foreign citizens invest in the United States. For most of the past 30 years, U.S. businesses and consumers have been purchasing more products and services from foreign countries than foreign businesses and consumers have been buying from the United States. In other words, imports to the United States have exceeded exports from the United States. This means that foreign citizens have been accumulating U.S. dollars. Eventually, these dollars have to make their way back to the United States, and they do so as FDI in the United States. This is one reason to expect China, with which the United States now runs a large trade deficit, to soon become a major source of FDI. The Chinese computer giant Lenovo's purchase of IBM's personal computer unit in 2004 and the Chinese auto company Geely's purchase of Volvo from Ford in 2009 are examples of what is likely ahead.

Impact of FDI on Employment

Like any investment, FDI in the United States creates jobs. But how many jobs, and where are they and what do they pay?

Table 2 shows the latest data on the distribution of jobs by industry created by foreign investments in the United States. More than 5.3 million jobs in the United States are

TABLE 2. Employment Associated with Foreign Direct Investment in the United States (2008)

Sector	Number of Jobs	Percent of Total
All industries	5,334,200	100.0
Manufacturing	2,063,900	39.0
Wholesale trade	614,700	11.5
Retail trade	563,800	10.6
Hotels and food service	358,100	6.7
Transportation and warehousing	233,100	4.4
Information	225,700	4.2
Finance	215,300	4.0
Professional, scientific, and technical	202,100	3.8
Agriculture and mining	82,900	1.6
Construction	74,500	1.3
Real estate	44,000	0.8
Utilities	28,000	0.5
Other	628,000	11.8

Source: Bureau of Economic Analysis. http://www.bea.gov

RISE OF FOREIGN-OWNED AUTO FACTORIES IN THE UNITED STATES

Manufacturing is the leading sector attracting foreign direct investment to the United States, and, within manufacturing, vehicle production has become a popular venture for foreign investors. There are now 10 foreign auto companies with factories operating in the United States, and more are planned for the future. Additionally, there are foreign-owned factories producing vehicle parts that then supply their output to the vehicle assembly plants.

Employment in foreign-owned auto factories in the United States steadily increased from the mid-1990s, rising 52 percent between 1995 and 2005. In contrast, domestic U.S. vehicle assembly and parts factories cut 350,000 jobs between 2000 and 2005, with more reductions in the wake of the 2008–2009 financial crisis. Thus, the gains in foreign-owned vehicle factories have not matched the cuts from domestic plants, so total employment in vehicle production in the United States has continued to fall.

The rise of foreign vehicle production in the United States and the decline of production from domestically owned companies have paralleled their sales trends. U.S. auto companies first trailed their foreign competitors in developing smaller, fuel-efficient vehicles in the 1970s and 1980s. Then they lagged in quality and customer satisfaction in the 1990s and 2000s. U.S. auto companies were not able to close these gaps, and they suffered severely during the financial crisis. (General Motors and Chrysler were bailed out by the government, and Ford sales dropped before evening out at a much lower volume than before.) Currently, the Big Three are in the process of becoming smaller in scale even while foreign producers have plans to grow.

U.S. and foreign vehicle companies have also differed in terms of their locations within the United States. Traditionally, U.S. vehicle companies located their production facilities in the Midwest, in states like Michigan, Ohio, and Indiana. Foreign vehicle companies have sited most of their factories in the South, including Alabama, Texas, and South Carolina. Lower labor costs and access to centers of growing population have been the main reasons pulling foreign factories to southern locations.

Although many Americans may be suspicious of foreign ownership, they have voted with their purchases and dollars in favor of foreign auto companies. The pay and prestige that a foreign vehicle production plant brings to a locality has set off intense competition between states for landing these so-called trophy firms.

directly associated with FDI, accounting for approximately 4 percent of all jobs in the country. Perhaps the most striking feature is the concentration of jobs in the manufacturing sector. Of the 5.3 million jobs, over 2 million of them are in manufacturing. This is 39 percent of the total FDI jobs. In comparison, in 2004, only 10 percent of all U.S. jobs were in manufacturing. An interesting feature of FDI is the growth of production and jobs in foreign-owned vehicle manufacturing factories placed in the United States.

FDI employment in the United States also pays well. In 2004, for example, FDI jobs paid an average of $62,959 in salaries and benefits, compared to $48,051 for all

U.S. jobs. Hence, the average FDI job paid over 30 percent more than the average U.S. job in the country. So foreign investors are not creating low-paying positions in the United States; they are creating just the opposite—jobs that pay at the upper end of the wage scale.

Comparing Insourcing and Outsourcing

How does FDI in the United States (insourcing) compare to U.S. direct investment in foreign countries (outsourcing)? Although FDI in the United States has been growing substantially, U.S. investment in foreign countries is larger still. The total value of U.S. investments in foreign countries is almost one-third larger than the corresponding foreign investment in the United States. Also, there are about two jobs in U.S. foreign factories and offices for every one job in the United States in a foreign-controlled company. So, by these standards, it can be said that outsourcing is larger than insourcing.

But before the conclusion is reached that this is bad, consider two counterpoints. First, since the U.S. economy is the largest in the world, it makes sense that U.S. companies will have more operations in foreign countries than foreign countries have in the United States. Second, foreign investments by U.S. companies can be complementary to domestic operations, making the domestic operations more efficient and profitable. Stated another way, putting some jobs in foreign countries, where costs may be lower or where access to important inputs is easier, can actually save jobs at home by making the operating company stronger and healthier.

Are Foreigners Buying Up the United States?

Although many positive aspects can be stated for FDI, there are a couple of nagging questions that frequently bothers people: Will foreign investments give the foreign owners control over the U.S. economy? Would these owners then pursue policies that are contrary to the national interests of the United States and its citizens?

From an economic perspective, these concerns are unlikely to be realized. This is because any investor, domestic or foreign, has two main objectives: preserving its investment and earning income on that investment. Pursuing destructive policies that damage the investment or its income-earning ability are simply not consistent with basic investment philosophy.

Another way of answering the questions is to calculate the proportion of the U.S. economy that foreigners own. This is found by taking foreign-owned assets as a percentage of all assets in the United States. In 2008, this percentage came to a little over 12 percent ($23.4 trillion of $188 trillion). Although this is double the percentage in the late 1990s, foreign gains have not come at the expense of domestic ownership. Between 1997 and 2008, foreign-owned assets in the United States increased by more than $5 trillion, but U.S. domestically owned assets rose by about $30 trillion.

The World Is Our Economy

It is likely that FDI, both in the United States by foreign citizens as well as in foreign countries by U.S. citizens, will increase in coming years. The reason is simple: globalization. With trade barriers lower and technology making travel and communication among countries in the world easier, we should expect money flows between nations and regions to likewise surge. Just as a century ago local financial markets in the United States expanded to become nationwide financial markets, world markets are now supplanting national markets. Our perspective of what is normal and common will have to adjust.

See also **Free Trade; Globalization; Outsourcing and Offshoring; Trade Deficits (and Surpluses)**

Further Reading

Crystal, Jonathan, *Unwanted Company: Foreign Investment in American Industries.* Ithaca, NY: Cornell University Press, 2003.

Gálvez-Muñoz, Lina, and Geoffrey G. Jones, eds., *Foreign Multinationals in the United States: Management and Performance.* New York: Routledge, 2001.

Maunula, Marko, *Guten Tag, Y'all: Globalization and the South Carolina Piedmont, 1950–2000.* Athens: University of Georgia Press, 2009.

Maynard, Micheline, *The End of Detroit: How the Big Three Lost Their Grip on the American Car Market.* New York: Broadway Books, 2004.

Maynard, Micheline, *The Selling of the American Economy: How Foreign-Owned Companies Are Remaking the American Dream.* New York: Broadway Books, 2009.

Wilkins, Mira, *A History of Foreign Investment in the United States, 1914–1945.* Cambridge, MA: Harvard University Press, 2004.

FREE TRADE

Diane H. Parente

Free trade is one of those concepts espoused by economists that makes perfect sense in the abstract. When one looks a bit closer, however, questions can be raised about whether we as citizens and consumers should support the implementation of free trade principles and policies. Ultimately, it depends on one's point of view.

What Is Free Trade?

Simply put, free trade is the exchange or sale of goods or services without the addition of any tariff or tax. It is common for import taxes to be levied when goods are brought into a country. Often, products that are produced outside a country are taxed, sometimes heavily, when foreign manufacturers bring these products into the home country for sale.

The notion of free trade says, for example, that there should be no additional taxes on foreign imports of cars vis-à-vis domestically produced automobiles.

What Is Nonfree Trade?

Another label for nonfree trade is protectionism. In this case, tariffs or taxes, trade restrictions, or quotas may be placed on the import of goods and services into a country. This is done to protect businesses in the home country from competitors. Opponents of free trade sometimes call this practice fair trade.

On the surface, for a resident of the home country, higher prices for imported goods means that the home country's goods will be purchased equally if not more robustly than a foreign competitor's products and moreover that those purchases will sustain businesses and save jobs in the home country. The truth, however, is more complicated. Adding tariffs in order to level the playing field between foreign and domestic competition actually ends up taxing consumers and causing them to pay higher prices.

Back to Basics

The fundamental laws of trade were first hypothesized in 1776 by Adam Smith in his treatise *The Wealth of Nations.* In this document, Smith had a simple make-buy argument: do not make at home what you can buy cheaper elsewhere. This applies to countries as well as to individuals. Thus, if one country (say, China) can make shoes cheaper than another (say, the United States), then it would make sense for Americans to buy shoes that are made in China. Smith's argument is logical in that we can do the things that we do well and buy goods and services from other countries that do those things well. This argument makes very good sense in the abstract.

As we can see in Figure 1, country 1 has a lower cost (C1) than the cost for the product produced in country 2 (C2) for the product being made. If we presume the same profit, *X,* then the price (P1) of the product produced in country 1 will be lower than the price (P2) of the product produced in country 2. This should be fundamentally good for consumers. However, if a tax (T) is added to the price for the good produced in country 1, as shown in Figure 3, then consumers will pay the same amount for the product and not realize any potential savings for efficiencies, as seen in Figure 2.

The example begs the question of what would happen if the tax were not imposed and free trade were enabled. Figure 3 illustrates the value to the consumer of free trade. In the example, both countries produce wine and wheat. However, country 1 produces wheat at a lower cost than country 2. Likewise, country 2 produces wine at a lower cost than country 1. If a consumer was able to buy wine from country 2 and wheat from country 1 (without any interference from tariffs), she would expend less money for both products.

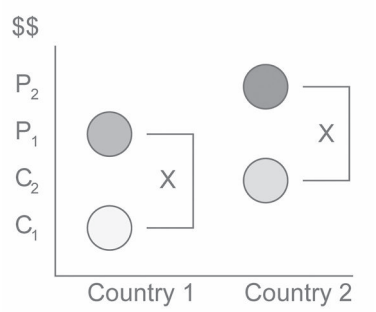


Figure 1. Costs and Corresponding Prices

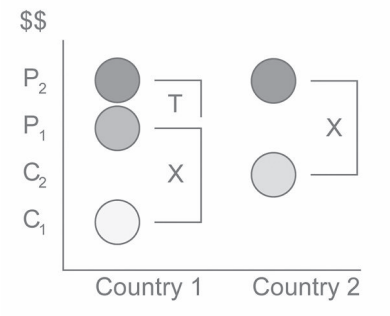


Figure 2. Prices under Nonfree Trade

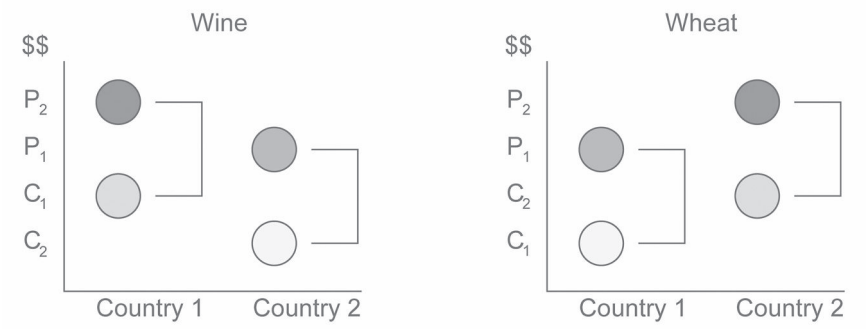


Figure 3. Tariff-Free Spending

What Are the Issues that Prompt Free Trade among Nations?

There are two fundamental factors that prompt nations to engage in free trade. One is buying power (or selling power), and the other is cost.

Consider the trading power of a nation. In our prior example, the more products a trading unit (i.e., a nation) has that it can produce at a low cost, the more opportunities it will have to trade. If each state in the United States were acting independently, it would have to be very efficient at organizing trades that would take a small number of products

and obtain all of the products that the individual state would need. However, with all 50 states operating without trade barriers, the movement of goods and services is free flowing. Consumers do not have artificial pricing increased by taxes. Trading power is enhanced in a free trade environment.

Cost is the second issue prompting free trade. Think about the possibility that a truckload of product would need to stop at the border of each state to continue. In addition to the time lost in the stops, a tax would be charged at each checkpoint. The total cost of the product in such a scenario would be increased dramatically. In fact, at one time, the truck transportation cost was estimated to be twice as much in Europe as it was in the United States due to border checkpoints where inspections would be made and taxes levied. Therefore, we can presume that total cost in a nonfree trade environment would be higher.

Where Is Free Trade?

One of the classic examples of an implementation of free trade policies is the formation of the European Union (EU). The countries in Europe maintained separate governments, currencies, and standards over centuries. The EU was formed to enhance political, social, and economic cooperation. As an example, prior to the formation of the EU, there was no free movement of people from country to country. Licensing standards for medical and professional personnel were neither consistent nor even recognized from one country to the next. In fact, these standards were so different and so ingrained in the laws of each country that it took 17 years to reach agreement on the qualifications for an architect. Architects, like other professionals, could not move freely from one country to another. Once the EU was established, architects could move from one country to another because they would be licensed in all of the countries in the EU. Licensing standards for doctors and other medical personnel were among those that would be harmonized, or standardized.

Uniting Europe was done for two stated reasons: preventing another world war and creating an economic unit as strong as the United States. The issues in the EU were many, and the task was very daunting in the beginning. Issues included a difference in tax rates (i.e., high in the United Kingdom and low in southern European countries), government (i.e., monarchy vs. democracy), currencies (each country with its own currency), and wages (i.e., high in the heavily industrialized countries and low in other countries). The common currency, the euro, came into use officially in 1999, and many of the other issues are either unresolved or have been recently resolved. So we might say that the jury is still out on the EU's success. (The global economic crisis of 2008–2009 caused some frayed relations but left the system intact; and even the collapse of the Greek economy in 2010 was being dealt with by means of EU policies and procedures.)

The North American Free Trade Agreement (NAFTA) was launched in 1994. Canada, Mexico, and the United States formed the world's largest free trade area. Unlike

the EU, there is no supraorganization over the independent participants. The agreement called for the elimination of duties on half of all U.S. goods shipped to Mexico and Canada immediately and for the phasing out of other tariffs over a period of 14 years. The treaty protected intellectual property and also addressed the investment restrictions between the three countries.

Several reports have been published that address the progress of the NAFTA agreement 10 years later. The *Yale Economic Review* reports that, during the five years before NAFTA, Mexican gross domestic product grew at 3 percent (U.S. Department of Commerce 2004). After the agreement, however, this rate increased to a high of 7 percent (prior to the global economic crisis). During the 10 years post-NAFTA, exports from the United States to Canada increased by 62 percent, and exports to Mexico increased by 106 percent. Canada's success with NAFTA is also well established.

What Are the Issues?

There are a number of issues and questions regarding free trade. The issues concern the economy, the political situation, and social matters.

One question has to do with workers' rights. Stories abound of child labor in foreign countries and poor wages, such as 50 cents per hour. The presumption is that these wages are slave labor rates in comparison to those of the United States. However, wherever globalization has taken hold, workers most often have seen dramatic improvements in their working conditions. Since foreign-owned companies are likely to provide similar conditions to their overseas versus domestic workers, local firms are forced to compete. Foreign-owned companies typically pay more than local businesses and provide a better environment to attract the best possible workers.

Another question relates to the environment. One view is that companies will set up shop at locations where they might avoid environmental constraints. However, this is usually a minor issue in the siting of a facility. Higher on the list of requirements are tax laws, legal systems, and an educated workforce. Infrastructure, such as transportation and packaging facilities, are also high on the list. Empirical evidence shows that the environmental standards of countries with free trade actually improve and do not deteriorate.

How does free trade affect manufacturing? Free trade, in the view of most, if not all, economists, is actually an advantage to U.S. manufacturing. Increasing productivity and decreasing costs force innovation and an increase in profitability. In fact, during the period 1992 to 1999, when the U.S. economy increased by 29 percent overall, manufacturing output increased by considerably more: 42 percent.

So we need to ask whether free trade enables movement of people across borders. Is immigration bad for the United States? The answer actually is no. Immigrants tend to fill gaps in worker shortages and often bring technical skills with them. Furthermore, a study by the National Research Council found that immigrants and their children actually pay more in taxes than they consume in services (Simon 1995).

LOSS OF JOBS AS A PERSONAL ISSUE

The steel business was a major industry in Buffalo, New York, employing nearly 60,000 people at its peak. The purchase of Lackawanna Steel by Bethlehem Steel was critical for location and access to the Buffalo and Detroit auto plants. Power was inexpensive due to the proximity to the Niagara Power Project, although a strong union position served to increase costs. As the industry gradually left the United States for offshore locations, initially to Southeast Asia, a cry concerning the impact of free trade and the loss of jobs as a result was heard throughout the area. Although that claim can be empirically disproved, it is a tough sell to a family whose father or mother is now one of those unemployed, with little prospect for obtaining work in another steel plant and few alternatives.

What about the phenomenon called brain drain? This is when nations or regions lose skilled or educated workers owing to the availability of better-paying jobs elsewhere. Poor countries often educate their population in specific jobs in medical areas and other professions in the hope that they will stay, only to find that some rich countries try to attract them away. The BBC reports that one-third of doctors in the United Kingdom are from overseas (Shah 2006). The report goes on to state that African, Asian, and Latin American nations are plagued by the brain drain issue.

Finally, free trade always spurs a discussion on jobs. While imported goods may take some jobs away from a country, such jobs generally are in industries that are less competitive. More often than not, technological changes, shifts in monetary policy, and other nontrade factors lie behind the loss of jobs. Increasing imports, it is generally considered among economists, actually increases jobs and serves to make workers more productive. (Remember, however, that this effect is in the aggregate, not in specific industries.)

What Are the Various Perspectives?

The benefits to the individual consumer are well documented. As seen in Figure 3, the individual will pay less overall for goods and services under a free trade economy. Furthermore, he will be able to buy higher-quality goods at lower prices than without free trade. The downside, of course, is that, while the long-term benefit is clear, the short term presents problems, especially if one's job is impacted by the movement abroad.

Countries that engage in free trade, or at least lower trade barriers, enjoy higher standards of living overall. As noted by Griswold (1999), trade moves to those industries where productivity and returns are higher. Thus, workers will have more job opportunities at higher wages.

There are also national implications from the value of the U.S. dollar (or the home currency). If trade barriers are imposed, imports are restricted. Americans then spend less

on foreign goods, which makes its currency higher with respect to other currencies. Thus, any industry that is not protected by tariffs becomes less competitive in world markets, and the United States is less able to export. It is a vicious cycle: restricting imports creates higher currency value, which then inhibits exports.

From the corporate perspective, with free trade, raw materials may be purchased more cost-effectively, manufacturing becomes more streamlined, and lower costs make products more profitable. When we consider the changes in industries that will make one industry more profitable, we should also examine whether a change in one industry places even more pressure on another. In our steel example (see sidebar "Loss of Jobs as a Personal Issue"), if quotas are imposed once steel moves off shore, then automobiles become less competitive domestically.

Continuing with the steel example, some of the "buy American" slogans may be misleading when we examine them further. According to Blinder (2002), the estimated cost

AN EXAMPLE OF THE CURRENCY ISSUE

Assume that a component—say, a circuit board—can be made in both the United States and Thailand. The cost (in U.S. dollars) is represented in the following table, both with and without tariffs.

	U.S. Product	Thai Product without Tariff	Thai Product with Tariff
Cost	$100	$60	$60
Tariff			$50
Final price	$100	$60	$110

If, as is usually the case, the circuit board is used as a component part in a larger manufactured good, the final good will be least expensive if the Thai component is used without a tariff. The idea here is that if there are no tariffs, then the corporation would tend to use the lowest-cost raw material. Thus, we could assume that, under the condition of no tariffs, the final price of the finished good might be as much as $40 less than if the U.S. circuit board were used.

If the U.S. circuit board were used (or the Thai product with the tariff applied), then the final product would cost more. A consumer would have less disposable income and would not be able to buy as many other goods as a result, reducing trade overall.

Since there would be fewer imports, there would be fewer U.S. dollars on the international market, raising the dollar's value. The result is that we would be selling less on the export market and actually decreasing trade.

If, on the other hand, we were to use the Thai product without tariffs, the cost of the final product would be less, and we would be able to spend more and buy more imports. This would cause the currency to be lower in value with respect to other countries and encourage export sales. The overall result is an increase in trade.

of saving jobs by implementing protectionism is staggering. He cites costs of restricting imports in the automobile industry "at $105,000 per job per year, one job in TV manufacturing at $420,000, and one job in steel at $750,000/year." No wonder the steel industry was one of the earliest to leave U.S. shores.

What Are the Options?

One option for free trade is balanced trade. In this model, countries must provide a balance from each country. Neither country is allowed to run deficits at the risk of penalties. Some critics of this approach think that innovation may be stifled.

Another option is called fair trade. In this scenario, standards are promoted for the production of goods and services, specifically for exports from lesser-developed countries to well-developed (First World) countries.

Another alternative is an international or bilateral barter program, which would force the matching of imports and exports. Finally, establishing increased credit risk for international loans, especially those brought on by trade imbalance, would lower the volume of uneven trade and look to the economic market for discipline.

Conclusion

Free trade is the movement of goods, services, capital, and labor across boundaries without tariffs or other nontariff trade barriers. Arguments against it and for the use of tariffs are intended to save jobs, but actually the application of tariffs costs consumers more for final goods and services and restricts competition in a number of fundamental ways. Free trade is not a main factor in the loss of jobs. Rather, free trade helps to improve productivity and, ultimately, raise the standard of living overall.

See also **Foreign Direct Investment; Outsourcing and Offshoring; Trade Deficits (and Surpluses)**

Further Reading

Bhagwati, Jagdish, *Free Trade Today.* Princeton, NJ: Princeton University Press, 2002.

Blinder, Alan S., "Free Trade." *The Concise Encyclopedia of Economics,* 2d ed. 2002. www.econlib.org/library/enc/freetrade.html

Griswold, Daniel, "Trade, Jobs, and Manufacturing: Why (Almost All) U.S. Workers Should Welcome Imports." Trade Briefing Paper, September 30, 1999. http://www.cato.org/pub_display.php?pub_id = 6812

Irwin, Douglas A., *Free Trade under Fire,* 3d ed. Princeton, NJ: Princeton University Press, 2009.

Roberts, Russell D., *The Choice: A Fable of Free Trade and Protectionism.* Upper Saddle River, NJ: Pearson Prentice Hall, 2007.

Shah, Anup, "Criticisms of Current Forms of Free Trade." *Global Issues* (March 31, 2006). http://www.globalissues.org/article/40/criticisms-of-current-forms-of-free-trade

Simon, Julian L., *Immigration: The Demographic and Economic Facts.* Cato Institute, December 11, 1995. http://www.cato.org/pubs/policy_report/pr-immig.html

U.S. Department of Commerce, International Trade Administration, Office of Industry Trade Policy, "NAFTA 10 Years Later." 2004. http://www.trade.gov/td/industry/otea/nafta/nafta-index.html

G

GLASS CEILING

William M. Sturkey

What Is the Glass Ceiling?

Glass ceiling is a term used to refer to the alleged limits of advancement that minorities, including women, experience in the U.S. workplace. It has been observed that the highest-ranking positions in organizations are dominated by heterosexual white men. This observation has led to the theory that minorities within organizations have a limited level to which they can advance. That ceiling for advancement is said to be transparent, or obviously biased, unlike other ceilings, which require various degrees of experience or education. Hence the term glass ceiling has been used to describe this phenomenon.

Does the Glass Ceiling Exist?

The term *glass ceiling* was first used by Carol Hymowitz and Timothy Schellhardt in the March 24, 1986, edition of the *Wall Street Journal* to describe the limits of advancement that women face in the workplace (Hymowitz and Schellhardt 1986). When originally used, the term drew widespread criticism because it claimed that women did not achieve high levels of advancement in the workforce because they were consumed by family life or did not obtain the required levels of education and/or experience. Since then, the term and the arguments surrounding it have developed to encompass all minorities in the workplace.

According to a great deal of research, the glass ceiling is a very real characteristic of the U.S. corporate atmosphere. A 1995 study by the Federal Glass Ceiling Commission found that 97 percent of the senior managers of the Fortune 1000 Industrial and Fortune 500 were white, and 95–97 percent were men. This is not demographically representative, considering that 57 percent of the workforce consists of ethnic minorities, women, or both. In 1990, Jaclyn Fierman (1990) found that less than 0.5 percent of the 4,012 highest-paid managers in top companies in the United States were women, while fewer than 5 percent of senior management in the Fortune 500 corporations were minorities. More recent figures show that gains have been made in some areas—for example, among Fortune 500 company boards of directors, women now make up 15 percent of the total (Catalyst 2008)—but clearly there is room for improvement. The conclusion reached from studies such as these is that there are invisible barriers that exclude women and ethnic minorities from upper management positions.

Despite evidence to the contrary, many argue that the glass ceiling concept does not exist. Those who argue that the glass ceiling does not exist focus mainly on the status of women and argue that the glass ceiling ignores pertinent evidence that disproves the theory and that it is an unrealistic conspiracy theory that simply reflects women's chosen positions in U.S. society.

One of the forms of evidence that glass ceiling detractors claim is ignored is the education of high-ranking executives. They argue that these executives are more qualified because they have achieved a higher level of education than most women. They argue that women are not well represented in upper-level management because of a lack of women receiving master of business administration (MBA) degrees.

Those who argue against the existence of the glass ceiling also argue that women are not represented in upper-level management because women do not aspire to such positions, partially because of the characteristics of U.S. society. It is argued that men work better in teams and under a chain of command than women, who take less dangerous jobs, are not willing to work long hours like men, and wish to have more maternal positions, such as nurse, child care provider, or secretary. Of course, the issue of childbirth and maternal instincts are also factors that many claim prevent women from holding high-level positions. Glass ceiling detractors often take as fact that women cannot be highly successful and raise children. Surprisingly, a great number of these types of arguments are being made by women with experience in the business world who do not see themselves as victims. Instead, they deny their advancement potential by claiming that they have decided to make another choice.

Those who argue against the glass ceiling in terms of how it affects ethnic minorities use similar arguments and often expand them to include stereotypes, the most common being that African Americans and Latinos are not self-directed or would rather perform labor-centered tasks. Other reasons used include a lack of education, inability to understand the English language or Western society, and a desire

to hold certain types of positions (e.g., linking Asian Americans to computer and science jobs).

The argument against the existence of the glass ceiling is compelling; however, the enormous disparities between the minority and majority when it comes to senior management positions make the analysis of this issue necessary, whether the concept is seen as bona fide or not.

Groups Affected by the Glass Ceiling

Women

For most of the 20th century, the levels of education achieved by men and women were disproportionate. However, recent decades have seen the end of unequal access to education in terms of gender. In 2008, 49 percent of the Yale undergraduate class was female, the entering class of the University of California, Berkeley's law school was 55 percent female, and Columbia University's law school (in toto) was 48 percent female. Over 50 percent of medical school applicants are now women, as are half of undergraduate business majors. So how has the discrepancy between men and women in high-ranking positions evolved?

One major and incontrovertible difference between men and women is that women give birth and men do not. This leads to one of the most common reasons given for the existence of a glass ceiling. Many argue that women simply choose other paths than their careers. One example comes from business. A Harvard Business School survey found that only 38 percent of women from the MBA classes of 1981, 1985, and 1991 were working full-time. Of white men with MBAs, 95 percent are working full-time, while only 67 percent of white women with MBAs have full-time positions (McNutt 2002).

Many women are discriminated against in the workplace. Often, when a woman is hired, she is hired under the assumption that she will leave her job or not work as hard when she gets married or has children. This type of attitude places women in the types of jobs that can be seen as temporary. Women may be working on small projects instead of being heavily involved with the infrastructure of a corporation. This type of job discrimination may go so far as to place women with college degrees as administrative assistants or secretaries. It is with this type of discrimination that many women's careers begin. Perhaps one of the reasons that women opt out of the workplace to raise children is because of the pressure and stress that come along with being a woman in the business world.

In addition, many of the same factors that affect ethnic and racial minorities also affect women. The next section addresses these issues specifically.

Ethnic and Racial Minorities

The barriers that ethnic and racial minority managers encounter are common to the experience of other minorities. These barriers operate at the individual and organizational

levels. They range from overt racial harassment experienced in the workplace to specific segregation practices. These barriers are believed to be responsible for the lack of ethnic minority senior executives in large organizations.

Bell and Nkomo (2003) have identified three major individual barriers that ethnic minorities experience: (1) subtle racism and prejudice, (2) managing duality and bicultural stress, and (3) tokenism and presumed incompetence.

This subtle form of racism and prejudice does not resemble the outright hostility that U.S. culture has rejected since the civil rights movement of the 1950s and 1960s but instead takes the form of what Essed (1991) has termed everyday racism. This includes acts of marginalization, which refers to the exclusion of African American managers from mainstream organizational life, thus maintaining their outsider status, and problematization, which includes the use of stereotypes to justify the exclusion of African American managers without seeming to be prejudiced or racist.

Another important form of an individual barrier includes racial harassment. Racial harassment occurs when an individual or group of employees is continually subjected to racial slurs, jokes, pranks, insults, and verbal or even physical abuse because of their race. Obviously, threats of violence and abuse are detrimental to any working environment, but racial harassment takes many forms and is often precipitated by fellow employees who are unaware of the harassment they inflict. Racial jokes are a good example of unconscious racial harassment. Another example would include a negative reaction to

EXAMPLES OF EVERYDAY RACIAL HARASSMENT

- Any type of racialized joke.
- Racial comments about public figures such as politicians, entertainers, athletes, or even criminals—for example, pointing out that the city councilman accused of fraud is "the black one."
- Asking individuals questions pertaining to their entire race—for example, Why do black people like chicken so much? or Why are Asians so good with computers?
- Using phrases that encompass derogatory terms—for example, nigger-lip, Asian eyes, black booty, or black music.
- Any comments or questions pertaining to a physical difference between the ethnic minority and white employees, including skin color, hair, or any other prominent features.
- Displaying symbols that could be racially offensive—for example, a swastika, Confederate flag, or any symbol resembling a racist organization. The display of a logo of a popular sports team may also be offensive. The most objectionable are those that portray Native Americans in a negative light. The display of this type of symbol may be considered racial harassment.
- Discussing or using quotes from racist films or music.

a news event involving a minority that reflects negatively on that minority's race or ethnicity.

The second level of individual barriers is referred to as bicultural stress. As Bell and Nkomo (2003) noted, in the organizational world, there is little tolerance or appreciation for cultural diversity in terms of behavioral styles, dress, or alternative aesthetics. Bell and Nkomo pointed out that most business environments rely on norms from mostly white Western society that may conflict with other dimensions of these minority managers' normal lives or backgrounds. If the manager is from a non-Western country, this conflict can only increase. The challenge of balancing these contrasting aspects of life often creates stress and tension between the workplace and one's private life. This tension becomes a barrier when ethnic minorities feel compelled to suppress one part of their identity to succeed in one or both of the cultural dimensions in which they exist.

The third level of individual barriers is tokenism. Tokenism is the process of hiring a token number of individuals from an underrepresented minority group to comply with government or organizational affirmative action policies. The people who are token hires are often viewed as representative of their entire race rather than as individuals. Their performance on the job and their personal lives are carefully examined and taken out of context. Because of these stereotypes and general animosity toward affirmative action policies, many other employees believe that these tokens received their jobs not because of individual merit but because of their minority status.

The psychological effects of being treated as a token negatively affect job performance. To overcome the stereotypes associated with each ethnic or racial group, the minority employees often feel that they have to perform at a higher level than other employees just to maintain equal status. They also have to spend a disproportionate amount of time validating their existence in the workplace. They are often aware that because they are perceived to represent their entire race, performing poorly will negatively contribute to the negative stereotypes attributed to their ethnic minority.

Entering a work environment is different for ethnic minorities than it is for white men and women. There are often a multitude of factors that must be juggled just to achieve equal status to that of white employees. The disadvantages that ethnic minorities experience in the workplace are prevalent from the first day on the job, and maybe even before.

Organizational-Level Barriers

Bell and Nkomo (2003) pointed out various organizational-level barriers that exist for ethnic minorities in the workplace. These include (1) lack of mentorship, (2) unfair promotion and evaluation processes, and (3) segregation into staff-type jobs.

Mentors are important in any large business environment. A mentor helps to increase self-confidence, motivation, career skills, career enhancement, career planning, networking opportunities, and, perhaps most importantly, mentors reduce isolation. Mentors are most likely to have mentees who have similar backgrounds. This is perfectly understandable

because people tend to sympathize with and coach those in similar situations or from similar backgrounds as themselves. A problem is that mentors may pass over a potential protégé who belongs to an ethnic minority group because of racial stereotypes that may make the mentor see the minority as a risky protégé.

Many employees from ethnic minority groups find it difficult to find mentorship. Friedman and Carter (1993) found that 53 percent of National Black MBA Association members felt that they did not have the support of a mentor. Without equal access to mentors, ethnic minorities are without one of the most important aspects of successful career advancement. It limits their networking opportunities, exposure within the company, and potential supporters. It also denies them the important basic advantages that a mentor provides as far as career planning and the transition into a new organization.

Over the past 20 years, numerous studies have been done that show that white supervisors rank managers from ethnic minority groups below white managers in their evaluations (Bell and Nkomo 2003). They rank them lower in terms of job performance and how they interact with other employees. Part of this is because of racial stereotypes. If supervisors consider ethnic minority managers to be doing a fine job, then their performance is attributed to the support structure they have around them that makes their job easier. For whites, top performance is attributed to effort and competence. As negative feedback builds, it has a snowball effect on African American managers as they lose their confidence and begin to question their own abilities. Low performance ratings have negative effects on an individual's long-term career prospects and self-prescribed potential for advancement within the organization.

There are clear trends in the career paths of the vast majority of CEOs of large organizations. The critical career paths have historically been through marketing, finance, and operations. The people who head companies are often funneled through these departments. Collins (1989) has pointed out that African Americans have been relegated to racialized jobs outside of those departments that produce the most upper-level managers. She suggested that African Americans are often placed in jobs dealing with public relations, community relations, affirmative action, and equal employment opportunity. Among 76 of the highest-ranking African American managers, she found that 66 percent held jobs that dealt with affirmative action or consumer issues. Because of the types of jobs that African American employees are often relegated to, it becomes more difficult for them to advance up the corporate ladder because they do not get experience in the most important functions.

Conclusion

The glass ceiling concept for women and ethnic and racial minorities is hotly contested. Those who argue that it does not exist for women claim that women are not represented in upper management well because they put their families before their careers. The argument against the glass ceiling concept as it concerns ethnic and racial minorities basically

hinges on racial stereotypes. Opponents claim that groups like African Americans and Latinos are lazy and that they are not willing to do what it takes to get to the top.

The argument backing the glass ceiling concept for women accepts that many women do choose to leave the workplace to make a family but that those who do not have suffered because of the common misconception and stereotypes surrounding all women. Arguments backing the glass ceiling concept for ethnic and racial minorities claim that basic racist ideas as well as cultural conflicts hinder the ability of people of color to reach upper levels of management. Arguments that the glass ceiling does exist are the most convincing because they are all backed by facts that do indicate, for one reason or another, that minorities are not represented demographically in upper levels of management.

See also **Affirmative Action; Class Justice (vol. 2); Employed Mothers (vol. 3)**

Further Reading

Barreto, Manuela, et al., eds., *The Glass Ceiling in the 21st Century: Understanding Barriers to Gender Equality.* Washington, DC: American Psychological Association, 2009.

Bell, Ella L. J., and Stella M. Nkomo, *Our Separate Ways: Black and White Women and the Struggle for Professional Identity.* Cambridge, MA: Harvard Business School Press, 2003.

Catalyst, *2008 Catalyst Census of Women Corporate Officers and Top Earners of the Fortune 500.* December 2008. http://www.catalyst.org/publication/282/2008-catalyst-census-of-women-board-directors-of-the-fortune-500

Collins, S., "The Marginalization of Black Executives." *Social Problems* 36 (1989): 317–331.

Essed, Philomena, *Understanding Everyday Racism: An Interdisciplinary Theory.* Newbury Park, CA: Sage, 1991.

Federal Glass Ceiling Commission, *Good for Business: Making Full Use of the Nation's Human Capital.* Washington, DC: 1995.

Fierman, Jaclyn, "Why Women Still Don't Hit the Top." *Fortune* 122 (1990): 40.

Friedman, R. A., and D. Carter, "African American Network Groups: Their Impact and Effectiveness." Working Paper 93–069. Cambridge, MA: Harvard Business School, 1993.

Hymowitz, Carol, and Timothy Schellhardt, "The Glass Ceiling." *Wall Street Journal* (March 24, 1986).

Karsten, Margaret Foegen, *Gender, Race, and Ethnicity in the Workplace: Issues and Challenges for Today's Organizations.* Westport, CT: Praeger, 2006.

McNutt, L., *The Glass Ceiling: It Can't Be Shattered If It Doesn't Exist.* 2002. http://www.ifeminists.net/introduction/editorials/2002/1217c.html

GLOBALIZATION

Peter H. Denton

One big planet, a global community, the vision of everyone and everything together from pictures of the Earth from space first sent back by *Apollo 8*—globalization can

be romantically portrayed as any of these. From the dark side, it can also be seen as something that shatters local communities, takes away individual autonomy, destroys local cultures, and renders everyone helpless in the face of overwhelming power from somewhere else.

That globalization can be seen as both the happy inevitability of a bright future and the dismal gray of a grinding disaster reflects the reality of a significant conflict between opposing perspectives. Globalization can be represented in economic, cultural, sociopolitical, and environmental terms, each of which has its own means of measuring the difference between heaven and hell.

Patterns from the Past

To some extent, globalization has always been with us. Looking to identify the means by which people or cultures have sought to spread around the planet and why, one can argue that the primary means has been military, conquering the world through the use of force. For historical examples, we can look to Alexander the Great, the emperors of Rome, Genghis Khan, and so on. In such instances, the means becomes the object; there is no particular value to be gained by conquest, yet the conquest continues because the military machine, so unleashed, has no particular boundary or end to its use. Like a forest fire, globalization by such means continues until it reaches some natural boundary—like a river or an ocean—or it runs out of "fuel" to sustain it.

On the heels of military globalization, the means by which the gains of conquest are maintained and the benefits accrue to the state or group that initiated the conquest are primarily political. One of the reasons for the failure of Alexander's empire was the fact he absorbed the local political structures, virtually unchanged, into his own; when he died, of course, that was the end of the empire. The Roman Empire, by contrast, brought with it Roman forms of government and social organization, structures that tended to be imposed on the local populations that were controlled and directed by Roman law and institutions. Caesars and other leaders came and went, but the empire continued until the center fell apart, and the institutions—though not the roads—also fell apart. Political organization may be combined with religious organization, however, and, although certain Roman institutions lost their sway in the outlying areas, the religion that was propagated through the military and political structures continued and spread.

With military and political impulses to globalization come economic considerations. In the first instance, to the victor the spoils, for the fruits of conquest are inevitably monetary—someone, after all, has to pay the costs of the operation and make it possible for further conquest. In the second instance, the establishment of political institutions makes an economic return on conquest more than the immediate spoils of war; a steady flow of money back to the state at the center of the empire enables the maintenance of a structure from whose stability everyone benefits, at least to some extent.

Trade flourishes in the context of political stability, and military power protects such trade from the natural depredations of those who want to profit through force and not commerce.

Naturally, to maintain this kind of structure in the longer term requires both common currency and common language; in the wake of military and political conquest inevitably comes the standardization of currency (the coin of the empire) and some common language for the exercise of political and economic power. Latin—and particularly Latin script—became the language of the Roman Empire to its farthest reaches, providing a linguistic uniformity and continuity that outlasted the empire itself by a thousand years. With linguistic uniformity comes intellectual constraints; whether it was previously possible to articulate dissent or rebellion in the language of the peoples, over time their linguistic armory is depleted by the acceptance and use of the language—and the philosophy it reflects—of the conquering culture. The longer an empire has control over the political, social, and religious institutions of the areas it has conquered, the less able the conquered people are able to sustain an intellectual culture distinct from that of their conquerors—thus increasing the likelihood that such an empire will continue, because no one can conceive of another way of making things work.

Colonialism—a practice that existed long before the European powers made it an art in the 19th century—was the means by which the empire was not only propagated but also sustained, through the use of military, political, economic, religious, and intellectual tools.

This is a coercive model of globalization, but it tends to be the one first thought of when discussing how to overcome the various geographical, social, and cultural barriers that divide various groups. It is also the model that is reflected most obviously in history, which tends to be a record of the various conquests of one people or nation by another.

Is it possible, however, for there to be an impulse to "one planet" that is not inherently coercive? Is it possible for these kinds of boundaries to be overcome through mutual goodwill or a collective self-interest, in which all parties cooperate because it is to the advantage of all players that they do so? This is the million-dollar question, because, in the absence of some way in which such cooperation might take place, all that remains is a coercive model, however well the coercion is disguised.

Money and Merchandise

Of the current models for breaking down regional boundaries, most of them are economic and arguably coercive in nature. There is the International Monetary Fund (IMF) coupled with the World Bank, both operating within the framework approved (if not designed) by the countries of the G8 (and now G9, if one includes China). Within that framework, although countries identified as "developing" are offered financial assistance, the assistance is tied to certain monetary and trade policies in such a way that they are, in effect, coerced into compliance. Where countries—including members of the G9—try

to go their own way, it is still within the framework of international trade agreements (such as the General Agreement on Tariffs and Trade [GATT]) and under the watchful eyes of global currency markets whose volatility is legendary. In the absence of a global gold standard, certain economies set a global economic standard through their national currency; for example, the value of other currencies used to be measured primarily against the U.S. dollar, though increasingly it is measured as well by the Japanese yen and by the euro from the European Union.

It would be one thing if this approach to globalization was successful, but for too many people, it is not; and the number of critics from all perspectives grows. Oswaldo de Rivero (2001), the head of the Peruvian delegation to a round of the GATT talks, lays out very clearly in *The Myth of Development* why the current structure not only favors the wealthy but also entails the failure of the economies of developing countries in the South. Similarly, Joseph Stiglitz (2003), 2001 Nobel Prize winner in economics, reached the same conclusions about the unequivocal failures of the IMF and the World Bank from the perspective of an insider in *Globalization and Its Discontents.* For those who wonder why and how such a situation came about, in *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor,* historian of technology David Landes (1999) set out the historical development of industrial economies through to the present and makes it clear why there are winners and losers.

There is a difference, however, between the macroeconomic globalization that organizations such as the IMF and the World Bank promote and what can be termed commercial globalization. Commercial globalization, through the merchandising of certain products worldwide, promotes an economic model of consumption that is not restricted by national boundaries. Because the objects sold through such global channels are always value laden, this reflects a globalization, if not of the commercial culture itself that produced the items, at least of some of its values and mores. For example, it is not possible for McDonald's restaurants to be found worldwide without there also being an element of the American burger culture that is found wherever there are golden arches, regardless of what food is actually served (even the McLobsters that seasonally grace the menu in Prince Edward Island). Given the worldwide availability—albeit at a higher price—of virtually any item to be found on the shelves of a North American supermarket or department store, and the capacity of advertising to be beamed simultaneously to multiple audiences watching television from the four corners of the globe, it becomes understandable how and why commercial globalization has become a potent economic, political, social, and cultural force in the 21st century.

Thus, the material aspirations of a 21-year-old in Beijing may well be parallel to someone of the same age in Kuala Lumpur, or Mumbai or Dallas or Moose Jaw. Exposed to the same images and advertising, their material desires in response are likely to be the same; regardless of their culture of origin, their culture of aspiration is likely to include cars, computers, iPods and fast food.

One might say the primary implication of commercial globalization is the globalization of consumer culture, specifically Western consumer culture. Whether such a culture is good or bad in and of itself, its implications are arguably negative in terms of what it does to the local culture through supplanting local values and replacing them with (usually) more alluring and exciting values from far away.

In addition, the diversity of local cultural values—reflected in everything from forms of government to traditions around medicine and healing to cultural practices related to agriculture, cooking, and eating to religious belief systems and habits of dress—is endangered by the monoculture of mass consumerism as it is represented in the venues of mass media.

The Global Village?

There is a difference, however, between globalization and standardization. It is important to distinguish the two, especially in light of the social and cultural requirements of industrial (and postindustrial) society. A very strong case can be made that the impulse to globalize is an effort to regularize and systematize the messy world of human relations into something that fits a mass-production, mass-consumption model. From the introduction of the factory system (1750) onward, industrial processes have become more and more efficient, systematizing and standardizing the elements of production, including the human ones. Ursula Franklin (1999) refers to the emergence of "a culture of compliance" in which the activities of humans outside the manufacturing process become subject to the same terms and conditions as are required in the process of mass production. This culture of compliance requires individuals to submit to systems; it requires them to behave in socially expected as well as socially accepted ways, thus removing the uncertainties and vagaries of human behavior from the operations of society. Although in the mechanical sphere of production, such habits of compliance are essential for the smooth operation of the system, taken outside into the social and cultural spheres in which people live, the antihuman effects of such standardization—treating people in effect like machines to be controlled and regulated—are unpleasant, if not soul-destroying.

Thus, in any discussion of globalization, it needs to be established from the outset what the benefit is, both to individuals and to societies, of some kind of uniformity or standardization in the social or cultural spheres. What is lost and what is gained by such changes, and by whom? Much has been made of the comment by Marshall McLuhan that humans now live in a "global village," thanks to the advent of mass communication devices such as the radio, the television, the telephone, and now the Internet. Yet studies were done of what television programs were being watched by the most people around the world and therefore had the greatest influence on the development of this new "global" culture that was replacing local and traditional cultures. Imagine the consternation when it was discovered that the two most watched programs were reruns of

Wagon Train and *I Love Lucy!* Globalization and the cultural standardization that mass-production, mass-consumption society assumes to be necessary may mean that the sun never sets on the fast food empires of McDonald's or Pizza Hut, just as 150 years ago it was said to never set on the British Empire. Yet if the dietary habits of local cultures, in terms of both the food that is grown or produced and the ways in which the food is eaten, are merely replaced by standardized pizzas or burgers (or McLobsters, instead of the homemade variety), one cannot help but think something has been lost.

In the same way as colonies were encouraged to supply raw materials to the homeland and be captive consumers of the manufactured goods it produced (along with the culture and mores that the homeland dictated), so too the commercial colonization of mass-production/mass-consumption society requires the same of its cultural colonies. The irony, of course, is that the homeland is much less identifiable now than it was in the days of political empires; although corporate America is often vilified as the source of the evils of globalization, the reality is that corporate enterprises are much less centralized and less entrenched than any nation state. Certainly the burgeoning economic growth of the European Union (with its large corporate entities that not only survived two world wars and a Cold War but even thrived on them), along with Japan, and the emergence of China and India as economic superpowers indicates that the capital of empire today is entirely portable. The reality that some corporations have larger budgets and net worth than many of the smaller nations in the world also indicates that borders are neither the boundaries nor the advantages that they used to be.

Broader Impacts

Although the economic examples of globalization today are arguably coercive (despite the inevitable objections that no one is forcing us to buy things), it is possible at least to conceive of other ways in which globalization might be noncoercive, incorporating mutually beneficial models instead. In a subsequent book, *Making Globalization Work,* Joseph Stiglitz (2007) works through the ways in which the current problems he and others identify with economic globalization could be overcome; while he proposes solutions to the major problems, he does not effectively address the motivational change that would be required for decision makers to make choices reflecting social responsibility on a global scale.

Politics and Resistance

In the political realm, the United Nations (UN) has, in theory, the potential to be a body that—while respecting the national boundaries of its member states—works to find constructive ways of collectively responding to regional and global issues. Whether its first 60 years reflects such an ideal or whether instead the UN has been a facade behind which coercion has been wielded by one group against another is a subject for debate; in the absence of a clear global mandate for intervention or the effective economic and

military means to intervene, moreover, even within a coercive framework, it is hard to see the UN as a model for good global government.

(In terms of any other models of globalization, one might point to the Olympic movement, but, because it has always been a stage for personal and national self-aggrandizement, it is hard to see how it could become a step to some positive global culture.)

In the larger scope history provides, there are positive signs for political organizations that transcend the boundaries of the nation-state and in which participation is voluntary, benefits accrue to all, and the elements of coercion become less significant over time. No one who witnessed the aftermath of the Napoleonic era, the revolutions of 1848, the Franco-Prussian War, the Great War, World War II, and the Iron Curtain ever would have expected either the peaceful reunification of Germany or the formation (and success) of the European Union. Begun first as an economic union, it has continued to grow and mature into a union that has lowered many of the barriers to social, cultural, and political interaction that hundreds of years of nationalism had created.

Whether the EU model is exportable to other parts of the world raises some serious questions about how political globalization might succeed. The EU is regional, involving countries with a long and similar history, even if it was one in which they were frequently at war. The export of its rationale to other areas and cultures, with a different range of historical relations, is unlikely to meet with the same success. There should be some considerable doubt that democracy—as a Western cultural institution—will be valued in the same way in countries that do not have a similar cultural heritage or as desirable to the people who are expected to exercise their franchise. William Easterly (2006), in *The White Man's Burden,* is quite scathing in his account of why such cultural colonialism has done so little good, however well-meaning the actors or how noble their intentions.

Certainly the effects of globalization are far from being only positive in nature; globalization in the absence of political and economic justice that is prosecuted through military and economic coercion creates not only more problems than it solves but also arguably bigger, even global, ones. Whatever the potential benefits of a global perspective, they are undercut by what globalization has come to mean in practical terms for many people—as the articles in *Implicating Empire: Globalization and Resistance in the 21st Century World Order* (Aronowitz and Gautney 2003) so clearly represent. After the events of September 11, 2001, one might easily argue against globalization of any sort given that previously localized violence has been extended worldwide as a consequence of what is now the "global war on terror."

All of these issues combine to ensure what John Ralston Saul (2005) describes as "the collapse of globalism." He sees recent events as sounding the death knell for the free-market idealisms of the post–World War II period, noting that the promised lands of milk and honey that were to emerge from the spread of global markets and the demise of

the nation-state have simply failed to materialize. In fact, the current reality is so far from the economic mythology that, in retrospect, it perhaps would not be unfair to regard the architects of this plan as delusional and their disciples as blind.

Saul does add a subtitle to his book, however, in which the collapse of globalism is succeeded by "the reinvention of the world." Out of the ashes of this kind of economic globalism, in other words, and the unmitigated disaster it has spawned, it might be possible to reinvent a shared perspective on global problems that seeks to find a way other than those that have failed. Although Saul is rather bleak in his outlook and much more effective in describing the collapse of globalism than in setting out the character of such a reinvention, he makes a useful point. The failures of economic globalism are so painfully obvious that there can be no reasonable doubt that some other means of working together must be found.

Environmental Issues

If there is a perspective that has potential to be a positive rationale for globalization, it might be an environmental or ecological one. One of the most significant issues pushing some cooperative means of globalization is the environment, as we consider the ecological effects of human activities on a planetary scale. Global warming, ozone depletion, and the myriad means of industrial pollution whose effects are felt worldwide make it clear that, in the absence of a global response, we will all individually suffer serious consequences.

As much as we like to divide up the planet in human terms, laying out the grid lines of political boundaries and economic relationships, the fundamental limitations of the planet itself establish inescapable conditions for what the future holds. Although this may seem just as counterintuitive as Saul's analysis of the failure of global economic systems reinventing the world, the global spread of pollution combined with catastrophic climate change may catalyze changes that overcome local self-interest in favor of something bigger than ourselves. The artificial boundaries that humans create—everything from the notion that one can possess the land to the idea that one can control a part of the planet—are seen through even a crude ecological lens to be nonsensical and even dangerous. If the idea that people have the right to do what they please with the land, water, or air that they "own" is replaced by some more ecologically responsible understanding, then there may be a common ground for cooperation on a planetary scale that does not yet exist. Whether such global cooperation will be in response to some global disaster or whether it will be the result of some new and more positive understanding remains to be seen.

It may seem like pie in the sky, but there are noncoercive ways of conceiving of a global community in which globalization consists of the universal acceptance of ideals and values. If justice, human rights, and respect were tied to the provision of the necessities of life to people in all areas of the planet, and peaceful means were used to settle

whatever disputes might arise, then a global culture that reflected these things would be good for everyone.

This is not a new idea, but it is one that Albert Schweitzer (1949) elaborated on in his book *The Philosophy of Civilization.* The first two sections were written "in the primeval forest of Equatorial Africa" between 1914 and 1917. The first section of the book, "The Decay and Restoration of Civilization," locates the global problem not in economic forces but in a philosophical worldview that has undermined civilization itself; for Schweitzer, the Great War was a symptom of the spiritual collapse of civilization, not its cause. He asserts that society has lost sight of the character of civilization and, having lost sight of it, has degenerated as a result. That degeneration is primarily ethical; civilization is founded on ethics, but we are no longer aware of a consistent ethical foundation on which we can build a life together. The second section, not surprisingly, is titled "Civilization and Ethics"; in it, Schweitzer explores this ethical (and spiritual) problem. Schweitzer's answer, reached in the third section, published after the war, was to found ethical action on a principle Schweitzer called "the reverence for life." By doing this, he said, it would be possible to make decisions that were more fair, just, and life-giving than society at the present time was making. He noted that the principle was a general one, for it was not only human life, but all living things, for which people were to have reverence.

The idea of "reverence for life" entailed not only an ecological view of life but also one in which a spiritual dimension in all living things was acknowledged and respected. Moreover, it was not merely a Christian spirituality that Schweitzer said must underpin ethics in civilization, but it was a spirituality in general terms that—across religious boundaries as well as cultural and political ones—had not just a respect for life, but a reverence for it.

Conclusion

In the search for some noncoercive means of uniting people across social, political, cultural, and economic as well as geographic boundaries, working out some vague consequentialist environmentalism to guide the activities and choices of individuals in the global community is not likely going to be enough. There does, however, need to be some ethical framework within which to consider options that, in some form and in the service of some greater, global good, will not have negative effects on people, places, and human institutions. Such a framework will be difficult to find, to articulate, and to accept. Perhaps Schweitzer's idea of reverence for life might turn out to be as useful an ethical touchstone for global decision making today as he thought it would be nearly a century ago.

See also **Free Trade; Outsourcing and Offshoring; Social Justice (vol. 2); Environmental Justice (vol. 4)**

Further Reading

Aronowitz, Stanley, and Heather Gautney, eds., *Implicating Empire: Globalization and Resistance in the 21st Century World Order.* New York: Basic Books, 2003.

De Rivero, Oswaldo, *The Myth of Development: The Non-Viable Economies of the 21st Century.* New York: Zed Books, 2001.

Easterly, William, *The White Man's Burden: Why the West's Efforts To Aid the Rest Have Done So Much Ill and So Little Good.* New York: Penguin, 2006.

Faber, Daniel, *Capitalizing on Environmental Injustice: The Polluter-Industrial Complex in the Age of Globalization.* Lanham, MD: Rowman & Littlefield, 2008.

Franklin, Ursula, *The Real World of Technology,* 2d ed. Toronto: Anansi, 1999.

Hilton, Matthew, *Prosperity for All: Consumer Activism in an Era of Globalization.* Ithaca, NY: Cornell University Press, 2009.

Landes, David S., *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor.* New York: W. W. Norton, 1999.

Saul, John Ralston, *The Collapse of Globalism and the Reinvention of the World.* Toronto: Viking, 2005.

Schweitzer, Albert, *The Philosophy of Civilization.* Translated by C. T. Campion. New York: Macmillan, 1949.

Stiglitz, Joseph, *Globalization and Its Discontents.* New York: W. W. Norton, 2003.

Stiglitz, Joseph, *Making Globalization Work.* New York: W. W. Norton, 2007.

GOVERNMENT SUBSIDIES

E. C. Pasour Jr.

A subsidy refers to an economic benefit from government to individuals or business firms. A subsidy may lower the price of a product or service to individuals or raise the price received by those who produce it. It may also benefit producers by lowering the cost of production. Governments—federal, state, and local—subsidize a wide range of economic activities in the United States. Well-known subsidies include government assistance to farmers, food stamps, college student loans, and economic incentives (such as tax breaks) by state and local governments to attract sports teams and manufacturing or research facilities.

Subsidies began in Great Britain in the 1500s with a grant of money by the British Parliament to the king to finance military expenditures. The money was raised by a special tax. The subsidy concept has long since been generalized and now refers to any economic favor by government to benefit producers or consumers. Though some subsidies may benefit the public at large, many subsidies today do not and frequently, quite appropriately, are referred to as political pork or corporate welfare.

What are the main kinds of subsidies in the United States? How do some of the familiar and not-so-familiar subsidy programs work? Why do subsidies typically lead to too much of the subsidized activity being produced and used? Subsidies generally benefit a

POLITICAL PORK AND CORPORATE WELFARE

In the literal sense, a pork barrel is a barrel in which pork is kept. The term is thought to have originated on southern plantations, where slaves were given a barrel with the remainder of slaughtered hogs—the pork barrel. In the political arena, pork barrel legislation is a derogatory term referring to government spending meant to shore up constituent support in a politician's home state. Pork barrel legislation provides rich patronage benefits to incumbent politicians. Public work projects and agricultural subsidies are commonly cited examples of pork. Increased pork might be ladled out for existing government programs that benefit particular groups such as corn producers, sugar producers, textile manufacturers, or workers in auto factories. It also might go for government spending on a new project, such as a new post office building, where economic benefits are concentrated in a specific congressional district.

Pork barrel projects providing subsidies to favored groups are added to the federal budget by members of the appropriation committees of Congress. The congressional process often provides spending on federally funded projects in the congressional districts of members of the appropriation committee. Pork barrel projects frequently benefit major campaign contributors. Politicians often are judged by their ability to deliver pork to their constituents, and candidates for political office sometimes campaign with the promise that, if elected, he or she will secure more federal spending for that state or congressional district.

Pork barrel legislation may also give rise to so-called corporate welfare, which describes a wasteful government subsidy to a large company. The government subsidy may be in the form of grants of money, tax breaks, or some other form of special treatment. Corporate welfare, which benefits particular business corporations, generally comes at the expense of other corporations and the public at large.

Political pork and corporate welfare, like beauty, may be in the eye of the beholder. For example, the prospect of large numbers of unhappy voters may cause the federal government to bail out a large corporation when it faces bankruptcy—as happened, for this and other reasons, in the case of General Motors and Chrysler in 2008–2009. The justification given may be that the loss of jobs and economic activity accompanying bankruptcy is so large that a bailout by the government to avoid bankruptcy would benefit the public at large. In the airline industry, for example, some firms may not be able to survive ongoing losses without government subsidies. Such bailouts, however, may not be beneficial. Bankruptcy of less efficient firms is an inevitable feature of a competitive market process, and profit and loss signals lose their ability to channel resources efficiently if business firms are not allowed to fail. Moreover, business firms seeking government aid often succeed when the benefits are highly concentrated on a relatively small group and the costs are borne by taxpayers generally, as in the case of the Wall Street bank bailouts of 2008–2009. Are such bailouts helpful or harmful to the public at large? Are they best thought of as corporate welfare or as a means of keeping the economy running when the stakes are high? In this and other such cases, opinion is sharply divided and perhaps only time will tell.

small group at the expense of the general population, and many are harmful to the general public. How, then, do harmful subsidy programs get enacted into law in a democratic society that makes decisions on the basis of majority vote? The following sections consider these questions and clear up some of the confusion about subsidies.

Types of Subsidies

Subsidies take many different forms and can be classified in different ways.

Money versus In-Kind Subsidies

A subsidy or so-called transfer from the government to an individual or business firm may be in the form of money or in-kind benefit. Well-known money transfers include agricultural subsidies, veterans' benefits, and Medicaid. Common in-kind benefits include food stamps, school lunches, rent subsidies, medical assistance, and other programs that do not involve the exchange of money. In some cases, an in-kind subsidy program may require the recipient to pay some of the cost. For example, the school lunch program is said to be means tested: depending on the parents' income, some students receive free meals, while students from families having higher incomes must pay, but the price paid is below the cost of the meal.

Business Subsidies versus Subsidies to Individuals

Business Subsidies

Federal, state, and local governments subsidize a wide range of producer activities. Farmers, for example, may receive financial assistance when crop prices are low or crop yields are lowered due to drought, hail, or other unfavorable weather conditions. Governments sometimes subsidize large corporations such as auto or steel companies. Assistance may be direct, as in the case of a financial bailout, or it may be indirect, including tariffs and import quotas that limit domestic sales of competing goods from foreign countries.

Quite often, a government subsidy is targeted to a specific business firm. State and local governments may attempt to lure a corporation to locate a manufacturing facility within its borders by providing property tax holidays or other financial incentives. For example, South Carolina, Alabama, and other states have used tax breaks to induce foreign auto companies, including Toyota and Mercedes, to locate manufacturing facilities within their states. Similarly, local governments often subsidize the construction of sports facilities to lure sports teams.

Similarly, large industries may induce the federal government to restrict competition from foreign firms producing similar products. Subsidies of this type include import tariffs on autos, steel, textile products, and agricultural products. An import tariff on autos, for example, means that Ford, General Motors, and other domestic auto producers can charge somewhat higher prices for their products in the United States (even

though, under current conditions, they must also offer economical models and provide low financing).

The federal government also subsidizes the export of products from the United States to other countries. For example, the export of agricultural products has been subsidized for more than 50 years. The best known program, known as Public Law 480, was first enacted in 1954. The program was begun to reduce stocks of food that the government acquired through its farm subsidy programs. The program reduces the cost of U.S. food in foreign countries. Some of the food is sold to foreign buyers with long repayment periods at low interest rates, which is a monetary subsidy. Some of the food subsidies are in-kind: the U.S. government donates food products to people in foreign countries in response to devastation caused by floods, earthquakes, famine, and so on. Still other agricultural export subsidies go to private companies and to state and regional trade groups to promote sales of U.S. farm products in foreign countries.

With the exception of subsidies for disaster aid, all export subsidies are inconsistent with free trade between countries. Programs that subsidize exports of U.S. agricultural products help to insulate U.S. farmers from world market prices and often work against the interests of low-income farmers in less developed countries. Moreover, U.S. export subsidies tend to cause recipient countries to retaliate by creating their own export subsidies and thereby foster increased protectionism by producer interests in those countries.

Subsidies to Individuals

Federal, state, or local governments may subsidize a product to increase the use of the product subsidized; such subsidies generally target lower-income consumers and are no less common than producer subsidies. Some consumer subsidies targeting low-income individuals, including food stamps and the school lunch program, have been operating for decades.

Other consumer subsidies of more recent origin are much less dependent on the individuals' incomes. For example, a recently enacted federal program provides an income tax credit for the purchase of hybrid cars—cars with both electric motors as well as internal combustion engines—which is available to all taxpayers. In this case, purchasers of hybrid cars may reduce their federal income taxes by a specified amount in the year that the car is purchased. For example, some buyers of hybrid cars, if purchased during 2006, were able to reduce their 2006 federal income taxes by as much as $3,150.

The hybrid car subsidy ostensibly was begun to reduce U.S. dependence on imports of petroleum. The long-term prospect for hybrid cars remains in doubt, and the huge tax credit required to make hybrids competitive with conventional gasoline-powered cars suggests that the subsidy may not be socially beneficial. It also raises a question as to whether future increases in technology will make hybrid cars competitive with

conventionally powered autos. The crucial public policy problem is that temporary subsidies to enable a new technology to become established often become permanent subsidies, even when the new technology does not pan out.

Effects of Subsidies

Why Do Subsidies Lead to Overproduction and Overuse?

When production of an activity is subsidized, producers increase output. When a business enterprise is operating under competitive conditions—in which it has little ability to influence the market price—it will continue to produce an additional unit of the product as long as the expected return is greater than the cost of producing the unit. For example, if the cost of producing another widget is $10, but the widget can be sold for more than $10, it is profitable to produce the widget. But if it costs more—say, $12—than it can be sold for—say, $10—it is neither profitable nor socially beneficial to produce it. The profit and loss system in this way provides a check on wasteful production.

However, if the government subsidizes production, a business firm may find it profitable to produce and sell too much. In the above example, a subsidy of $3 per widget makes it profitable to produce and sell another unit for $10, even if it costs $12 to produce: $10 from the buyer plus $3 from the government is more than the cost of production. In this case, the government subsidy overrides the loss signal—the resources used in production are worth more than the value of the product! Agricultural subsidies are a good example. Government subsidies to farmers lead to overproduction. This also may be the case for ethanol, a substitute fuel for gasoline. The ethanol subsidy also illustrates how government subsidies generally are supported by vested interests. It is shown in the following section how small groups are able to maintain their transfer programs, regardless of whether they are beneficial to the public at large.

The Ethanol Subsidy

The far-reaching energy legislation enacted by the U.S. Congress in 2005 illustrates a number of issues related to producer subsidies. With higher petroleum prices and increased uncertainty about oil production in the Middle East, there was increased interest in biomass-derived fuels. Biomass refers to all bulk plant material. One of the first provisions of the 2005 legislation to take effect mandated an increase in the production and use of ethanol, currently made from corn or sugar. Gasohol, a mixture of gasoline and ethanol, is the primary fuel of this type.

Ethanol production recently has become a much more important public policy issue in the United States. However, interest in ethanol as an auto fuel is not new. Congress enacted legislation providing for subsidies for ethanol and other biomass-derived fuels more than 30 years ago, following the Arab oil embargo of 1973. The subsidy was in the form of exemptions from federal excise taxes, which have been in the range of 50 to 60

cents per gallon of ethanol. The subsidy amounted to more than $10 billion between 1979 and 2000. In 2005, more than 4 billion gallons of ethanol were used in gasohol in the United States out of a total gasoline pool of 1.22 trillion gallons. Corn farmers became staunch supporters of the ethanol program—no surprise because it increases the use and market price of corn.

Most energy experts believe that using corn to make ethanol is not an economically feasible substitute for gasoline. Although ethanol is sold to the public as a way to reduce dependence on oil, the net amount of oil saved by gasohol use, if any, is small. Indeed, widely cited research suggests that it may take more than a gallon of fossil fuel to make one gallon of ethanol. The growing, fertilization, and harvesting of corn and the fermentation and distillation processes that convert corn to ethanol require enormous amounts of fossil fuel energy. Although there is no consensus among energy experts as to whether ethanol production reduces dependence on fossil fuel, there is little doubt that ethanol subsidies are driven far more by congressional lobbying and farm-state politics rather than by the fact that it is a practical, long-term alternative to petroleum.

Why Are Subsidies Often Harmful?

Government subsidies were originally viewed as a grant of money or special privilege advantageous to the public. More often, however, as in the case of farm programs, subsidies work against the interests of the public at large because they lead to too much production; that is, the cost of production exceeds the value of the product produced. Moreover, the very process through which special interest groups gain an economic advantage through government legislation creates additional waste. Typically, as in ethanol production, a subsidy can be traced to so-called privilege-seeking behavior by those who stand to gain. Privilege seeking occurs when individuals or groups, such as corn farmers or sugar producers, attempt to influence the political process for their own financial benefit.

Why is privilege-seeking behavior harmful from the standpoint of the public at large? It is neither easy nor cheap to influence the political process—to obtain a government favor. Individuals and groups spend large amounts of time and money on campaign contributions, lobbying, and so on to obtain government subsidies. The time and money to influence the political process to obtain legislation that restricts competition is wasted, at least from the standpoint of consumers and taxpayers generally. The valuable resources used to obtain the subsidy could have been used to produce additional goods and services that would have benefited the public at large.

The sugar program is a prime example of how privilege-seeking behavior can lead to bad public policy. The sugar price support program raises sugar prices to U.S. producers of sugar cane and sugar beets by restricting imports of sugar from Brazil and other countries that can produce sugar more cheaply than the United States can. U.S. import quotas limit the amount of sugar coming into the United States from other countries

and keep the domestic price of sugar in the United States higher than the world price of sugar—it has sometimes been twice as high. The cost of the sugar subsidy is borne largely by U.S. consumers and manufacturers of sugar products, who must pay much higher sugar prices than they would have to pay if there were no sugar program. This sugar tax, in the form of higher retail sugar prices, according to the General Accounting Office, costs U.S. consumers some $2 billion per year.

Who benefits from the sugar subsidy? It benefits relatively few U.S. farmers—growers of sugar beets, sugar cane, and corn—and domestic manufacturers of sugar substitutes. It should not be surprising that sugar interests donate large amounts of money to political candidates. The Florida cane-growing company Flo-Sun contributed $573,000 to candidates in recent elections. American Crystal, a sugar beet cooperative in the Red River Valley of North Dakota and Minnesota, donated $851,000 in the 2004 elections.

The sugar subsidy benefits corn farmers as well as sugar producers. How do corn farmers benefit from the sugar subsidy? The sugar price support program not only raises the price of sugar, it also spurs the development and production of sugar substitutes because it makes them more competitive with sugar. For example, U.S. consumption of corn-based sweeteners now is larger than that of refined sugar. The sugar subsidy is defended by lobbyists representing both corn farmers and producers of corn-based sweeteners. The added support for the sugar subsidy helps to maintain what almost all objective analysts agree is a bad public policy.

Why Not Just Abolish Bad Subsidies?

Why is it that getting rid of a harmful subsidy is easier said than done? A subsidy program may be proposed for a variety of reasons that are generally misleading and often erroneous. These arguments made by subsidy proponents quite often divert attention from the actual reason. For example, the sugar subsidy, which virtually all objective analysts agree raises the sugar price, is sold to the public as a way to stabilize the sugar market or prevent swings in sugar prices.

Consumers, of course, benefit when prices are low some of the time instead of being high all of the time, as they are under the sugar price support program. In reality, the sugar subsidy can be chalked up to favor seeking by producers of sugar and sugar substitutes.

The sugar program is a classic example of how a government program may last a long time, even though the number of consumers and taxpayers harmed is far, far larger than the number of individuals and business firms benefiting from the subsidy. The direct beneficiaries of the U.S. sugar subsidy, for example, are highly concentrated on the approximately 10,000 domestic producers of sugar and sugar substitutes. Each sugar cane and sugar beet farmer may benefit by thousands of dollars from the sugar subsidy. For example, a U.S. Department of Agriculture study reported that each one-cent increase in the sugar price was estimated to average $39,000 per sugarcane farm and $5,600 per sugar beet farm (Lord 1995).

The sugar subsidy program also is highly beneficial to the industry producing high fructose corn syrup, the sweetener used in many soft drinks. It should not be surprising that Washington lobbyists for corn refiners are highly effective advocates for the sugar subsidy. Archer Daniels Midland Corporation (ADM), a large agribusiness firm, for example, is a driving force behind the sugar lobby in the periodic congressional battles over sugar legislation. Although ADM does not directly produce sugar, it does produce high fructose corn syrup. As the sugar price increases, so does the demand for and price of high fructose corn syrup and other sugar substitutes.

The sugar subsidy creates a price umbrella under which ADM can profitably operate to produce the corn sweetener substitute. If there was no price support program for sugar, sugar prices in the United States would be much lower, and ADM probably would not be able to produce high fructose sweetener at a price low enough to compete with sugar. Since the benefits of the sugar subsidy are highly concentrated on a relatively small number of sugar farms and agribusiness firms, such as ADM, it is in their financial interest to make sure that well-paid lobbyists exert a lot of pressure in Congress to maintain the sugar subsidy.

While the benefits of the sugar subsidy are highly concentrated on a small number of producers of sugar and sugar substitutes, the cost of the sugar subsidy is divided among 300 million users of sugar in the United States. The average consumer uses about 100 pounds of sugar per year. Even if the sugar producer subsidy doubles the retail sugar price, the cost to the individual consumer is quite small (almost certainly less than $100 annually). What is the implication? Individuals supporting the sugar subsidy can afford to spend huge amounts of money lobbying Congress to maintain the sugar program, but individual consumers cannot afford to spend much time or money fighting the sugar program because the amount of money each spends on sugar is just too small. This is the main reason the United States sugar subsidy has lasted for decades, even though it is harmful not only to consumers buying sugar but to manufacturers using sweeteners in candy, cookies, and other food products as well.

Conclusion

The term *government subsidy* originally referred to a grant of money from the British Parliament to the king to finance military expenditures. Subsidy now refers to a wide range of government favors to business firms or individuals. Current subsidies often face widespread criticism, especially corporate welfare, a derisive term for subsidies made to large business corporations.

A subsidy program may be enacted to benefit individuals or business enterprises. Common subsidy programs to individuals include federal and state education subsidies, food stamps, rent subsidies, medical subsidies, school lunch subsidies, and subsidies to reduce energy use in autos and home heating and cooling systems. Business

subsidy programs include subsidies to farmers, agribusiness firms, steel producers, auto producers, textile producers, sports teams, and so on.

While a subsidy may sometimes be warranted—that is, it is advantageous to the public at large—typically, this is not the case. Quite often, the cost of the output exceeds its value—too much is produced from the public's point of view. What explains the prevalence of harmful government subsidies? Most public subsidies can best be explained by favor seeking by narrowly focused producer and consumer groups who successfully further their own interests through the legislative process at the expense of the public at large. In other words, programs presumably enacted to further the public interest frequently transfer wealth from individual consumers and taxpayers to special interest groups—including the auto industry, airline industry, steel producers, textile producers, farmers, and ship builders—even when they are harmful to the public. Ethanol and sugar subsidy programs are prime examples.

In a democratic society operating on a one person–one vote basis, how can a small group of individuals or business firms obtain legislation that benefits them at the expense of the public at large? Economists, using public choice theory, a new subfield of economics, only recently have begun to understand this phenomenon. If the benefits of a subsidy are highly concentrated on a small group and the costs are widely dispersed over the entire population, as is often the case, the subsidy may be enacted and last for a long time. Consequently, the burden of proof for any subsidy should be on those who defend it. Citizens in a democratic society should question current and proposed government programs that confer benefits on particular business firms or individuals at the expense of the rest of society.

See also **Bank Bailouts; Corporate Tax Shelters; Election Campaign Finance; Interest Groups and Lobbying**

Further Reading

Hyman, David N., *Public Finance: A Contemporary Application of Theory to Policy,* 6th ed. Orlando, FL: Dryden Press, 1999.

Johnston, Mark C., *Free Lunch: How the Wealthiest Americans Enrich Themselves at Government Expense.* New York: Portfolio, 2007.

Lord, Ron, *Sugar: Background for 1995 Legislation.* Washington, DC: U.S. Department of Agriculture Economic Research Service, 1995.

Pasour, E. C., Jr., and Randal R. Rucker, *Plowshares and Pork Barrels: The Political Economy of Agriculture.* Oakland, CA: Independent Institute, 2005.

Peterson, E. Wesley F., *A Billion Dollars a Day: The Economics and Politics of Agricultural Subsidies.* Malden, MA: Wiley-Blackwell, 2009.

Sorkin, Andrew Ross, *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System from Crisis—and Lost.* New York: Viking, 2009.

H

HEALTH CARE

Jennie Jacobs Kronenfeld

Health care is a complex issue. Many aspects of the health care system in the United States are in the process of change, partially because of the enactment of new legislation that modifies aspects of health care insurance in the United States. This new legislation has a goal of increasing access to health care through providing greater access to health care insurance among Americans and will be discussed in more detail at the end of this entry.

History and Background of the U.S. Health Care System

At one point in time, the U.S. health care system was dominated by physicians who worked in private practice as independent practitioners and was even described as a cottage industry since many physicians had their offices in their homes (Starr 1982). During that time period (up to 1900 at least and probably later), most people who had other options tried to avoid hospitals, because hospitals were viewed as a place to go to die for people with no other option and for people who were too poor to be able to remain in their homes. In addition, during the same time frame, there was not much care that could be provided for a person in the hospital that could not occur in the homes of people of economic means. This worked as the system for some period of time. Most people paid doctors as they received their care, and health insurance was not important for most people to obtain care. By 1900, there began to be some types of health insurance policies that people could purchase, often as a mix of coverage for

actual health care costs and coverage for being out of work. Gradually, sick leave policies and disability policies replaced those aspects of health insurance, and health insurance became coverage for the major health care costs. Discussions grew about the need for people to have coverage. This related to improvements in medicine and surgery, so that surgery became safer and less scary through the use of anesthesia and an understanding of the need to control infection to facilitate safe recovery from surgery. New technologies such as X-ray machines also made the use of hospital services desirable, and people then wanted a way to pay the higher medical bills. During the presidency of Theodore Roosevelt, the first major attempt to pass some type of heath reform and health care coverage for many Americans occurred. During the same period, the efforts of the labor movement in the United States and such groups as the American Association for Labor also began, with these groups pushing health insurance programs mostly through state government efforts prior to World War I.

Push for Health Insurance from the 1920s to 1965

In 1921, a partial effort to provide health insurance coverage to mothers and children was passed: the Maternity and Infancy Act (also known as the Sheppard-Towner Act). This was a grant to states in the area of health and was an early successful effort to expand the role of the federal government into the provision of health care assistance to specialized groups of citizens. Although the goals of this program may seem simple and not controversial today, the program was very controversial in the 1920s and generated great criticism from conservative political groups and from the American Medical Association. The criticism was loud, and the commitment to the program by the political powers of the time was fairly limited, so the act was not renewed in 1929 and the program ceased to exist.

The idea of a Medicare program, or provision of health care insurance for the elderly, was rejected as part of the Social Security legislation in the 1930s because of opposition from the American Medical Association. Franklin Roosevelt wanted to be sure that the essential Social Security legislation creating an old-age pension system was enacted and quickly backed off from a Medicare-type provision when it became clear that it would be more controversial than the rest of the program and could potentially threaten the passage of the overall Social Security legislation. Although Medicare-type legislation continued to be introduced into most sessions of Congress once World War II ended, these pieces of legislation had little chance of success in the late 1940s and 1950s. Medicare did eventually pass, of course, in 1965 as part of the Great Society legislative efforts of President Lyndon Johnson. This program was created as a federally administered program, with the same benefits for all Social Security recipients regardless of which state they resided in. The program was designed to be similar to the health insurance that most working Americans had through their jobs at that time (although the latter was privately contracted between employers and insurers). At the same time,

the Medicaid program that provided health coverage to selected groups of the poor was also passed, though as a federal-state joint program rather than as a national program. Over the past 40-plus years, both of these programs have become the major efforts of the government in the provision of health care insurance and health care services to parts of the U.S. population. They have also grown to be very complex programs, with many detailed and specific provisions and many important limitations that have been the subject of much critique and many policy debates. Both programs have changed and evolved a great deal.

Medicare, Medicaid, and Health Insurance for the Rest of the Population

Once Medicare was passed, the elderly had access to a health insurance plan that resembled what many working-age Americans had through their jobs, because a central goal of Medicare was to bring the elderly into the mainstream of U.S. medicine. Another basic assumption was that Medicare would provide all elderly with the same health insurance coverage, whatever a person's income level before retirement or after retirement. A third assumption of the architects of the basic Medicare legislation was that Medicare was the beginning of a government role in health insurance, perhaps a first step toward a more universal health insurance system. This did not really happen, with a few small exceptions such as adding coverage for people with kidney disease and then the extension of coverage to more children under the State Child Health Insurance Program (SCHIP) in the 1990s.

The basic coverage of Medicare was hospital coverage, known as Part A of Medicare, In addition, most people 65 and older also purchased Part B coverage for physician's fees. Social Security recipients pay for the Part B coverage, although the amount is deducted from their Social Security checks before they are issued so that some elderly do not know how much they pay for this coverage each month. The general premium in 2009 was $96.40 per month for most people, although the premium can be higher if the income of the person or couple is high enough. The costs of Medicare were higher than early estimates, and they continued to increase as the costs and complexities of health care increased and as the absolute numbers of people aged 65 and over increased. By the end of the first year of the operation of Medicare, 93 percent of the elderly (about 19 million people at that time in the United States) had enrolled in Part B. Beyond enrollment, usage of the program grew rapidly. By the end of the first year of operation, one in five of the elderly had entered a hospital using their Medicare benefits, and 12 million of the elderly had used Part B services. On average, about 80 percent of the hospital expenses of the group using hospital services were paid that year by Medicare.

There were some early implementation problems such as delays in payment to providers, especially during the first summer of operation. Fears about overcrowding of hospitals did not occur. Despite physician opposition to the program before it was passed, Medicare benefited physicians after its passage. Physicians initially received substantial

income supplements from the Medicare program, and most physicians ended up being reimbursed for services they previously provided for free or at a reduced cost to the elderly before Medicare. In a variety of ways, costs ended up being higher than expected. In its early years, Medicare costs exceeded the actuarial projections that were made at the time of its passage. One explanation is that both hospital and doctor fees rose, partially because the arrangements for paying physicians were quite generous. There are estimates that physician fees initially rose 5 to 8 percent, and physician incomes went up 11 percent (Marmor 2000). Similar problems, perhaps even more serious, existed in the area of hospital prices. The Labor Department's consumer price survey showed that the average daily service charge in U.S. hospitals increased 21.9 percent in the first year of operation of Medicare. In 1968 and 1969, Medicare costs rose around 40 percent each year, leading to Medicare acquiring a reputation, both in Congress and in the administrative branch, as a program with a potential to be an uncontrollable burden on the federal budget.

One clear result of the first two years of experience was that the rise in medical costs did initially lead to increased interest in national health insurance. For example, in 1968, an organized labor–supported Committee for National Health Insurance was created, and the American Hospital Association announced that it planned to study the feasibility of a national health insurance plan. From 1965 to the present, the U.S. health care system has had a number of important changes, but one thing that has not changed greatly is that, except for people whose health insurance is provided through a government program such as Medicare or Medicaid, most people obtain their health insurance through their jobs.

Having good health insurance coverage has been one of the most basic indicators of access to health care in the United States since the end of World War II. Although estimates vary regarding the numbers of people uninsured and underinsured in the United States from the early 1980s to the present, most sources agree that there was an increase in the numbers of uninsured from the late 1970s to the early 1990s. In the late 1970s, the best estimates were that 25 million to 26 million people in the United States were without health care insurance, or about 13 percent of the population under 65. The numbers of uninsured grew in the 1980s. Estimates ranged from a low of 22 million to a high of 37 million by the late 1980s. In a review of statistics from 1980 to 1993, one source estimated that the uninsured population increased from 13 percent to 17 percent in that time period (Andersen and Davidson 1996). Medicaid coverage increased (from 6 percent to 10 percent) as part of some of the expansions already discussed, but coverage by private health insurance decreased (from 79 percent to 71 percent). The proportion covered by private health insurance decreased for every age group, and the decline was especially noticeable for children under 15.

Critical to understanding how some groups of people have no health insurance in U.S. society is the realization that most private health insurance in the United States

is purchased through employer-based group insurance policies, representing 75 percent to 85 percent of all private coverage. One major factor in the increase in the number of uninsured during the 1980s and early 1990s was the growth in unemployment in the early 1980s and again in the early 1990s, as well as in the last few years. Those with a history of serious medical problems comprise another group of people with no insurance. Many people with serious health problems do maintain health insurance coverage as long as they keep their jobs. If they lose their jobs due to the general economy or their health but can still work, they may experience problems in finding employment due to their health. People who are medically uninsurable are a small part of those without health insurance, but they are important because they are very high utilizers of health services.

These kinds of issues have led at different points to calls for national health insurance reform. As various political issues shifted in the 1970s, no major national health insurance reform was passed. From the 1970s on, there have been a number of times when health care reform was a major topic of discussion and when expectations for the passage of some type of program were high, but the efforts did not succeed. In the Nixon administration, there was a major attempt to pass health insurance legislation, and many expected it to succeed, but Watergate and the political fallout from that scandal blew apart the attempt to create a Republican-Democratic consensus on reform legislation. When Jimmy Carter was elected president, there were planks in the Democratic party platform that called for major health care reform, but economic issues took center stage, and no program that had any realistic chance to pass was ever introduced into Congress at that time. The last major push for major health care reform before the Obama administration's current effort was the failed attempt by the Clinton administration to pass health care reform at the beginning of Bill Clinton's first term as president in 1993. After this, the Clinton administration focused on expanding coverage for children, which resulted in the passage of the SCHIP program. The only major health care coverage expansion during the George W. Bush administration was the expansion of Medicare to include drug coverage.

Recent Expansions of Publicly Funded Insurance: SCHIP and Changes in Medicare

Some important expansions have been passed in the last decade, especially the State Child Health Insurance Program, which has expanded the provision of government-provided health care insurance to the children of the working poor, and the drug coverage provision of the Medicare program, which has dealt with one major criticism and weakness of the Medicare program, the lack of inclusion of coverage for drugs.

In fall 1997, Congress passed the joint federal-state SCHIP as part of the Balanced Budget Act of 1997, which began in fiscal year 1999. As an expansion, this program focused on providing coverage to children, a group that previous surveys found was viewed

HEALTH CARE COSTS

A half century ago (1960), an average of $148 was spent by every person in the country on health care, and health care spending accounted for 5 percent of all spending in the economy. In 1980, these amounts had increased to $1,100 and 9 percent, and in 2008, they had jumped to $7,680 and 16 percent. The current amounts for the United States are higher than comparable measures in virtually all other countries.

While spending amounts will rise over time because of general inflation, the spending amounts above have been adjusted for general inflation, so we cannot blame the increase in health care spending on the general rise in prices.

Many citizens and policymakers look at the steady climb in health care expenditures and health care's share of the economy with alarm. Is it a result of waste in the health care system, meaning that all we need to do is eliminate the waste and health care costs will fall? Or are other factors at work that make the rise in health care expenditures more complicated and less ominous?

We Are Aging

One simple reason why health care spending is rising is that we are an aging population. In 1960, 9 percent of the population were aged 65 years or older, whereas in 2008, just over 12 percent were. It is a simple fact that older persons use more health care. People in their seventies spend more than 6 times more on health care than people in their twenties, thirties, and forties, and folks in their eighties spend 15 times more. Our aging population can account for as much as 25 percent of the increase in health care expenditures per person between 1960 and 2008.

However, this still leaves the majority of the rise in health care spending in recent decades owing to factors other than aging. What are they, and what do they imply for efforts to tame the health care money-eater?

Are We Getting More for Our Money?

An economic fact of life is that spending on any product or service equals the price charged per unit of the product or service multiplied by the number of units purchased. So, for example, if one hamburger has a price of $1, and you purchase 10 hamburgers, then your spending on hamburgers is $1 (per unit) times 10 (units), or $10.

Therefore, when we notice that total spending on health care is rising, the increase can occur because (1) the price per unit of health has risen, (2) the number of units of health care purchased has increased, or (3) a combination of both has occurred.

We already know that the number of units of health care purchased has been increasing due to the country's aging population. But the quality and scope of health care provided to the entire population also has been increasing. Modern health care, with its high-tech equipment and ever-increasing knowledge, can perform more operations, successfully treat more diseases, and extend healthy life spans to a much greater degree than ever

(*continued*)

(*continued*)

before. Stated another way, modern health care spending can do much more than health care spending in the past. The costs are greater, but so, too, are the benefits.

Some economists therefore argue that because modern health care is accomplishing so much more, its price per unit has actually fallen, and all of the increase in spending is because of the increased consumption of units of health care. Admittedly, while this is a difficult as well as controversial conclusion to reach, it does direct attention away from total spending to its components—price and both quantity and quality consumed.

Who Pays Matters

In the typical buying situation, a person evaluates the benefits of a product or service and then judges whether those benefits are greater than the price the person must pay to obtain the product or service. So if hamburgers cost $1 each, you will buy hamburgers up to the point where the last one bought gives you a benefit (satisfying your hunger or the enjoyment of eating) of $1. Since you are paying for the hamburgers, you have a big motivation to compare the costs and benefits of buying them. Usually, the initial units of a product or service give higher benefits than the later ones. So when the price of hamburgers is lower, you will buy more burgers.

What if someone else pays, or partially pays, for the burgers? Say the government subsidizes the cost of hamburgers at the rate of 50 cents per burger. This means that, for every burger with a price of $1, the government pays 50 cents and you pay 50 cents.

What will this do to the number of hamburgers you buy? It will certainly increase it. Now you will purchase burgers up to the point where the last one bought provides a benefit of only 50 cents. Maybe you will not eat all of them at once but take some home and save them for later. But the two important points to realize are that (1) you will buy more burgers and (2) the benefit of the burgers to you does not have to be as great as when you paid the entire bill.

What does this have to do with health care costs? Plenty. Health care costs faced by consumers are heavily subsidized in two ways. First, the government—primarily through Medicare and Medicaid—pays for almost half (45 percent) of all health care expenditures. Second, private insurance pays a little more than one-third (36 percent). This means that the consumer of health care only pays directly less than 15 cents on the dollar (14 percent) of its cost.

Of course, consumers pay for the government subsidy through taxes and for the insurance subsidy via insurance premiums. But there is no direct relationship between the amount of health care a person uses and the taxes he pays. Also, insurance premiums are first paid, and then health care is used later. So if there is any correspondence between the use of health care and insurance premiums, it certainly is not one to one.

What this means is that the heavy subsidization of health care has motivated people to use more health care. In fact, that is likely the purpose of the subsidization. Indeed, as the subsidization of health care has increased, so has spending on health care. Back in 1960, consumers directly paid for 60 percent of health care expenditures, and in 1980,

their share was 30 percent. As the consumer's direct share has dropped, spending on health care has climbed—just as economists would predict.

Yet is it not a good thing that these subsidies encourage people to use more health care than they would have if they directly paid all the costs? Most people would answer yes, yet economists point out that there is an issue. When a person pays for all the health care she uses, this guarantees that every dollar spent on health care is perceived as at least being worth a dollar of benefits to her. When health care spending is subsidized, this is not the case—every dollar spent on health care is not necessarily worth a dollar of benefits to the person receiving the care.

This implies that health care may be overutilized. Tests, procedures, and medicines are being used that are valued at less than their cost to the consumer.

Consumers and society might be better off if some of that spending was redirected to other things, including preventive care, proper diet, exercise, and sleep.

—Michael L. Walden

Sources: Centers for Medicare and Medicaid Services, Department of Health and Human Services, *NationalHealthExpendData.* Table. http://www.cms.gov; Administration on Aging, Department of Health and Human Services, http://www.aoa.gov/; Centers for Disease Control, "Health, United States, 2009," http://www.cdc.gov/nchs/data/hus/hus09.pdf

by most of the public as an important group to have coverage for health care. When SCHIP was passed, around 10 million children under the age of 18 were estimated to be without health insurance coverage in the United States, or about 12 percent of children under the age of 18. Children in some parts of the country and some population groups were more likely to be without health insurance. This included children living in the South and the West, children living outside metropolitan areas, and Native American and Hispanic children, as well as the main target group of the legislation, children in lower income brackets. SCHIP represented the largest expansion of health coverage since the passage of the Medicare and Medicaid Program.

SCHIP has had some success in improving the insurance levels of children. By 1999, 23 percent of children were covered by public programs such as Medicaid and SCHIP, compared to only 11 percent in 1987, before SCHIP and some of the Medicaid expansions (Federal Interagency Forum on Child and Family Statistics 2001). SCHIP grew to be a major program, with the expenditures for the program totaling $2.1 billion in fiscal year 2000, or 0.8 percent of total state health care spending and 0.2 percent of all state spending. The program has continued growing. Estimates are that, since SCHIP was created in 1997, the number of uninsured low-income children in the United States

has decreased by one-third. In 2006, 91 percent of children who were covered by SCHIP had incomes at or below 200 percent of the federal poverty level ($20,650 for a family of four in 2007). Combined with the Medicaid program that covers children in families with the lowest incomes, SCHIP and Medicaid provide health insurance coverage to one-quarter of all children in the United States and almost half of all low-income children.

There are important differences between SCHIP and Medicaid. Medicaid is a joint federal-state entitlement program in which federal funding increases automatically as health care costs and caseloads increase. In contrast, SCHIP is a block grant with a fixed annual funding level. The initial program was authorized for 10 years, and, to continue, the program needed reauthorization. There was a debate over this, and eventually only a continuing resolution let the program remain in place by the end of the Bush administration in 2008. Once Barack Obama became president, the reauthorization of the SCHIP program was the first piece of health legislation passed, signed on February 4, 2009. The signed bill reauthorized and expanded SCHIP to an additional 4 million children. In the new legislation, children in families with incomes of up to three times the federal poverty level will qualify for the program. The legislation also requires states to offer dental care through SCHIP and to provide equal coverage of mental and physical illnesses.

As mentioned, one major change in Medicare occurred during the Bush administration. There was growing concern about the rising costs of health insurance, but the major health-related effort in the second half of 2003 was a push for a Medicare reform bill. This passed at the end of November 2003 as, in some ways, a political compromise between Democrats and Republicans so that both sides could claim some success in improving Medicare as they ran for reelection. The law provided a new outpatient prescription drug benefit under Medicare beginning in 2006. In the interim, it created a temporary prescription drug discount card and transitional assistance program. The Part D drug option was a major addition to the Medicare program and partially dealt with what had been a major criticism of Medicare, the lack of drug coverage. Prior to the enactment of the Part D drug benefit, around one-third of seniors had no drug coverage. People without drug coverage generally had higher out-of-pocket costs and were less likely to fill prescriptions.

Medicare Part D is a prescription drug insurance plan that provides beneficiaries with prescription drug benefits. To receive these benefits, people must pay a monthly premium as part of enrolling in the plan and continue to pay it each year, or else they will have an interruption of coverage. People must choose among available plans in their state. The costs for the plans vary, as do the specific drugs that are covered. This potentially makes the choice confusing to consumers, and this was an initial concern. Because not every plan will cover the same drugs, people must search current medications for coverage under the Medicare Part D plans available to them. Although consumers were

confused initially, most are now choosing to enroll in a plan (unless they have supplemental coverage through a retirement work-based plan or other supplemental plan that provides drug coverage that is as good as the typical Part D plan).

One concern about the plan is that there is a coverage gap; during this portion of spending, plans are not required to provide any coverage to beneficiaries. The gap, or doughnut hole, was created as a way to provide a large amount of coverage (75 percent) to most Medicare beneficiaries after the modest deductible but to hold down the cost of maintaining it throughout the year. For those with extremely high drug costs, catastrophic coverage resumes (once a person has spent over $4,550 on drug costs as of 2010) and covers the rest of one's drug expenditures in that year. The doughnut hole became one of the most controversial aspects of the Part D plan. One study found that, for the 12 percent of people who reached the Part D coverage gap, there was a decrease in essential medication usage. Zhang and colleagues (2009) found that those lacking coverage for drugs in the doughnut hole period reduced their drug use by 14 percent. The proportion of beneficiaries reaching the doughnut hole increased as the number of chronic conditions that a person has increased.

Both of these new programs or extensions to existing programs have been successful efforts at expansion of the role of the federal government in the provision of health insurance coverage to Americans. But both also have created new complexities in the case of drug coverage for those on Medicare and new variation in coverage across states in the case of SCHIP, since the program, as with the Medicaid program, is jointly administered at the federal and state levels and has some differences in eligibility and some differences in coverage across states.

The Need for Health Insurance Coverage and Obama Reforms

The lack of health insurance among a substantial group of Americans is not a new issue, but as the recession hit and more people lost jobs and younger people had trouble finding jobs initially, the issue of the link between employment and health care became clearer and problematic. Also, there were concerns for older people who either planned an early retirement before the age of 65 or who lost a job in their fifties and discovered how difficult it was, in a time of recession, to find new jobs with health insurance or to be able to purchase a private health insurance policy. For people who already had health problems, many insurance companies would not provide coverage for preexisting conditions.

There were also discussions about how programs such as Medicaid did not cover all of the poor and about the groups of people with low incomes who nevertheless earned too much or had too many assets to qualify for Medicaid in many states. The percentage of people in poverty has been increasing and was 13.2 percent in 2008, up from 12.5 percent in 2007. The number of people without health care insurance has been increasing over the past decade. About 39.8 million people had no insurance in 2000, and this increased to more than 45 million people with no coverage in 2005, a 13 percent increase

from 2000. The number of people without health insurance coverage continued to rise, though not as rapidly, from 45.7 million in 2007 to 46.3 million in 2008, while the percentage of uninsured remained unchanged at 15.4 percent (DeNavas-Walt, Proctor, and Smith 2008). In addition, during this period, there was a decrease in employer-provided health care coverage, from 69 percent of employers providing coverage in 2000 to 60 percent in 2005. The number of people covered by all types of private health insurance continued to decrease from 2007 to 2008, with absolute numbers decreasing from 202 million to 201 million. The number covered by employment-based health insurance declined from 177.4 million to 176.3 million. Numbers of uninsured overall did not increase more, because the number covered by government health insurance climbed from 83 million to 87.4 million. These figures and concerns are the backdrop for some of the renewed push for health care reform after the election of Obama.

Shortly after the election, discussion began about health care reform. One initial approach of the Obama administration was to try and have Congress work through and develop the legislation. Partially, this was a reaction to the failure of the Clinton plan and the consensus that the administration in that case had become too involved in the details and Congress did not feel invested in the plan being developed. During 2009, some criticism of this approach arose, with people arguing that, to pass controversial, major legislation, the president had to become more involved. At one point, there was a feeling that Obama and the Democratic party would have the votes available to pass major legislation, especially given the conversion of the formerly Republican senator from Pennsylvania, Arlen Specter, to the Democratic party, which gave the Democrats a veto-proof majority in the Senate. Things moved slowly, however, and no legislation had been passed by the time of the elections in November 2009, when the Democratic Senate seat held for decades by Ted Kennedy in Massachusetts was open due to Kennedy's death. A shock occurred in that election, with a Republican capturing the seat. This meant that passage of the bill might not be possible without use of the so-called reconciliation approach, which required only a majority of votes (the Democrats still had 59 seats in the Senate). The initial Senate version of the bill was passed in late 2009. The U.S. House of Representatives passed the bill to reform health care in March 2010 by a vote of 220 to 211. The House also passed a bill, which then was sent back to the Senate to modify some versions of the Senate bill. That bill was also passed in March 2010. The bill was signed by President Obama on March 23, 2010.

When fully phased in, the legislation will cover around 32 million Americans who are currently uninsured. Major coverage expansion begins in 2014, with exchanges being created and the requirement that most people have health insurance. Beginning in 2010, insurers must remove lifetime dollar limits on policies, and some subsidies to small businesses to provide coverage to employees will become available. Insurance companies will be barred from denying coverage to children with preexisting conditions. Children will be allowed to stay on their parents' insurance policies until their 26th birthday.

Gradually, a number of other changes will be put into place. Medicaid will be expanded, the doughnut hole in the Medicare drug plan will gradually disappear, and certain preventive services in Medicare will be available without a copayment. There will be reductions in Medicare advantage plan payments that will help to extend the life of the Medicare trust fund. An independent advisory board will be created to make recommendations for other cost savings. The legislation will establish the Community First Choice Option, which will create a state plan option under section 1915 of the Social Security Act to provide community-based attendant supports and services to individuals with disabilities who are Medicaid eligible and who require an institutional level of care, to try and begin to deal with some of the needs of the elderly and disabled for less intensive community-based services. There will be the creation of some demonstration programs for certain types of home care and modifications to some of the rules for nursing homes that receive Medicare payments. A number of new taxes and fees—some on people through Medicare taxes and others on drug makers and employers—will begin in various years, such as 2011 for drug makers and fines on employers mostly beginning in 2014. Taxes on high-cost health plans will not begin until 2017.

Continuing Concerns and Unresolved Issues

Although there are high hopes that the new reforms in health insurance—a more accurate description of the Obama changes than "health care reform"—will lower the rates of the uninsured, many problems were not dealt with. In much of the discussion, there was talk of a public option, a way to be sure that there was an affordable option for everyone. This did not end up in the legislation, and, while insurance companies will have to offer coverage to a person and there will be health care exchanges, there is not a limit on what can be charged, so costs of health insurance may not be well controlled. In addition, the bill has few mechanisms in place to control rising costs of health care and of drugs, so that some experts fear that, as happened with the passage of Medicare and Medicaid in the 1960s, costs will increase and there will be need for additional reforms to deal with costs. Some issues in Medicare were dealt with (the doughnut hole in the drug plan and some beginnings of experimentation with aspects of long-term care), but the major issue of long-term care for the elderly, a growing program as the large baby boom group in the population begins to age, is not really covered. How the new taxes will actually work and how fines and mechanisms to ensure that all people purchase coverage remain to be seen as the different provisions of the Obama plan come into effect in future years.

See also **Interest Groups and Lobbying; Prescription Drug Costs; Social Security**

Further Reading

Andersen, Ronald M., and Pamela L. Davidson, "Measuring Access and Trends." In *Changing the U.S. Health Care Delivery System*, ed. by Ronald M. Andersen, Thomas H. Rice, and Gerald F. Kominski. San Francisco: Jossey-Bass, 1996.

DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance Coverage in the United States: 2007.* U.S. Census Bureau, Current Population Reports, P60–235, Washington, DC: U.S. Government Printing Office, 2008.

Federal Interagency Forum on Child and Family Statistics, *America's Children: Key National Indicators of Well-Being, 2001.* www.ncjrs.gov/pdffiles1/ojjdp/188155.pdf

Greenwald, Howard P., *Health Care in the United States: Organization, Management, Policy.* San Francisco: Jossey-Bass, 2010.

Kronenfeld, Jennie Jacobs, *Expansion of Publicly Funded Health Insurance in the United States: The Children's Health Insurance Program and Its Implications.* Lanham, MD: Lexington Books, 2006.

Kronenfeld, Jennie Jacobs, and Michael Kronenfeld, *Health Care Reform in America.* Santa Barbara, CA: ABC-CLIO, 2004.

Marmor, Theodore H., *The Politics of Medicare,* 2d ed. New York: Aldine De Gruyer, 2000.

Quadagno, Jill, *One Nation Uninsured: Why The U.S. Has No National Health Insurance.* New York: Oxford University Press, 2005.

Skocpol, Theda, *Protecting Soldiers and Mothers: The Political Origins of Social Policy in the United States.* Cambridge, MA: Harvard University Press, 1992.

Starr, Paul, *The Social Transformation of American Medicine: The Rise of a Sovereign Profession and the Making of a Vast Industry.* New York: Basic Books, 1982.

Zhang, Yuting, Julie Marie Donohue, Joseph P. Newhouse, and Judith R. Lave, "The Effects of the Coverage Gap on Drug Spending: A Closer Look at Medicare Part D." *Health Affairs* 28, no. 2 (2009): w317–w325.

I

IMMIGRANT WORKERS

Kenneth Louie

Immigration policy in the United States has become a highly contentious issue, one that is likely to play an increasingly important role in affecting electoral outcomes at the local, state, and national levels. Currently, members of the U.S. Congress as well as elected public officials in locales across the country are embroiled in an emotionally charged debate over the immigration issue. The country will eventually have to grapple with a host of concerns, but some of the key policy areas of contention include how to control unauthorized (illegal) immigration into the United States, how to resolve the status of the illegal aliens who are already working in the United States, whether we should establish a so-called guest worker program that will allow foreigners to work in the United States temporarily, and whether, on balance, immigrant workers have a positive or negative economic effect on native U.S. workers.

Many Americans believe that, as a nation, we should continue to uphold the principle of openness so eloquently captured by the words at the Statue of Liberty: "Give me your tired, your poor, your huddled masses, yearning to breathe free." These individuals also contend that immigrants contribute positively to the economic, political, and social vitality of the country. Many other Americans, on the other hand, believe that uncontrolled immigration, especially of the illegal kind, will create significant adverse economic consequences for the nation that may spill over into the political and social arenas.

It is interesting to note that some of the elements in the current debate are not new. In the 1980s, for example, U.S. officials faced increasing political pressure to do

something about the growing number of unauthorized workers from Mexico and to counteract the widespread perception that U.S. employers who hired illegal aliens were seldom prosecuted. In response, Congress passed the Immigration Reform and Control Act (IRCA) of 1986. Although the IRCA was intended to strengthen enforcement by imposing penalties on U.S. employers who knowingly hired undocumented workers, it did not succeed in significantly reducing illegal immigration, partly due to underfunding of the enforcement efforts and the widespread use of fraudulent documents by unauthorized workers (Martin and Midgley 2003). IRCA also addressed the question of how to treat illegal immigrants who were already in the country, another issue that is looming large in the current debate, essentially by granting legal status to 2.7 million unauthorized foreigners in the United States. Another revision of the immigration system was tried in 2005–2006 but failed to pass. While many facets of the current immigration debate have historical antecedents, it remains to be seen how the United States will address this important issue as the second decade of the 21st century progresses.

Arguments for and against Immigration

Advocates on both sides of the immigration issue have at one time or another put forth arguments based on history, philosophy, politics, culture, or religion in support of their cause. For example, one of the common arguments put forth by advocates of an open immigration policy is that, since its founding, the United States has always been a nation of immigrants, and the country should therefore maintain its immigrant heritage by continuing to welcome foreigners to its shores. Other advocates of unrestricted immigration maintain that, by introducing greater diversity, immigration strengthens and enriches the United States' political, social, and cultural institutions. Religious organizations, such as the Roman Catholic Church, are generally in favor of unrestricted immigration because of humanitarian reasons and sometimes issue official pronouncements opposing barriers to human migration.

Those in favor of restricting immigration have argued that the changing ethnic composition of the U.S. immigrant population (which, as will be documented subsequently, is becoming increasingly Hispanic and Asian) will pose difficult political challenges, such as deciding whether to offer bilingual education in public schools. A related argument is that, unless assimilation into the society on the part of immigrants occurs quickly and smoothly, the increased ethnic diversity associated with a rapidly changing immigrant population may weaken the social and cultural fabric that unites the country. It is interesting to note that even Benjamin Franklin expressed concern about the rate of assimilation by German immigrants into U.S. society in the late 18th century by asking, "Why should Pennsylvania, founded by the English, become a colony of aliens, who will shortly become so numerous as to Germanize us, instead of our Anglifying them?" (Degler 1970, 50). Proponents of immigration restrictions also point to the additional political challenge of having to deal with increasingly severe strains placed on

the health care and law enforcement systems as a result of high levels of immigration. Of course, superimposed on all these arguments for restricting immigration are the concerns for national security that arose after the terrorist attacks on the United States on September 11, 2001.

But perhaps the most controversial, and hence most scrutinized, arguments put forth by advocates on both sides of the debate are the ones concerning the economic impact of immigration. Those who advocate open borders argue that immigration is economically beneficial both to the immigrants and to the native U.S. population. For example, when immigrants come to the United States from other comparably developed countries, mutual benefits come in the form of new ideas generated from human interaction that ultimately lead to economic growth and higher standards of living for all. According to the proponents of unrestricted immigration, even immigrants who come to the United States from poorer countries benefit from the higher U.S. standard of living at the same time that they contribute to the output, or gross domestic product (GDP), of the U.S. economy.

In contrast, those who argue for restrictions on immigration contend that immigrant workers create significant negative effects for the U.S. economy. For example, in labor markets where immigrants compete for the same jobs with native-born workers, the earnings and employment opportunities of native-born workers will both be reduced. Additionally, immigrants may create net fiscal burdens for governments at the national, state, and local levels if they contribute less in tax revenues compared to their drain on government resources.

Evidence on the Economic Effects of Immigration

Because such a big part of the debate centers on the economic impact of immigration, it is not surprising that economists have conducted extensive research into this very question (see, e.g., Borjas 1994). So what does the empirical evidence tell us?

Studies in the late 1970s seemed to suggest an optimistic outcome for immigrant workers in the United States. Specifically, researchers reported that immigrants were able to achieve earnings comparable to those of native-born workers with similar socioeconomic characteristics within a relatively short time. Indeed, the rapid rise of their earnings implied that many immigrant workers appeared to earn more than comparable native-born U.S. workers within one or two decades after entering the United States. Furthermore, these earlier studies did not provide any strong evidence that immigrant workers reduced the employment opportunities of native-born workers. Consequently, the empirical findings up until the mid-1980s were consistent with the view that immigration was mutually beneficial to immigrant workers (because of their very steep earnings profiles) as well as to the U.S. economy (because of the additional output and income generated).

Starting in the mid-1980s, however, a somewhat different picture emerged as economists conducted new research studies as well as reassessed earlier ones. Partly as a result

of discovering methodological weaknesses in some of the earlier studies and applying more elaborate statistical techniques to new data sets, economists began to revise their views on the economic impact of immigration.

For example, especially in light of the fact that the skill levels of immigrants into the United States were shown to have been declining during the postwar years, the new view was that recent immigrants were unlikely to achieve the same earnings levels as native-born workers, even over the entire course of their working years. Moreover, many of the new research studies concluded that immigration may in fact have lowered the earnings of unskilled native-born U.S. workers during the 1980s, although the magnitude of the effect appears to be small. The consensus at present seems to be that immigration has reduced the wages of low-skilled U.S. workers, especially those without a high school degree, by about 1–3 percent (Orrenius 2006).

In addition to these labor market effects, immigration may also create fiscal impacts on government budgets. For instance, highly skilled immigrants in the technology, science, and health fields have a significant positive effect on the U.S. economy not only through their contributions to the nation's GDP but also through their contributions to tax revenues. Because so much attention is focused on illegal or low-skilled immigrant workers, it may be surprising to many that about 40 percent of the doctoral scientists and engineers in the United States are foreign-born immigrants (Orrenius 2006). These foreign-born workers are likely to create a net fiscal benefit for the U.S. economy.

The net fiscal impact of low-skilled immigrant workers is less certain, however. While these immigrants still contribute to the nation's output, they may have a negative fiscal impact if they draw on more public services, such as education and health care, compared to their tax contributions. Furthermore, the distribution of the fiscal burden of these immigrants may become an important policy issue, since most of the fiscal benefits (in the form of employment taxes) go to the federal government, while much of the cost (such as health care and educational expenses) must be borne by state and local governments. Recent studies suggest that, overall, legal immigrants and their descendants actually end up paying more in taxes compared to what they receive in government benefits, with the difference (measured over the course of the immigrants' lifetimes) estimated at about $80,000 per immigrant (Smith and Edmonston 1997; Lee and Miller 2000).

What about the economic effects of *illegal* immigration? In the current debate, there is much concern that illegal immigration has unambiguous negative fiscal effects in the U.S. economy. But there are several reasons why this may not be the case. For example, illegal immigrants may contribute less to government tax revenues (although they may still have to pay payroll and sales taxes, which are hard to avoid). But illegal immigrants are also ineligible for many government programs such as Social Security and unemployment insurance. Therefore, illegal immigrants do not necessarily create a net fiscal burden. Indeed, since illegal immigrants enter the United States primarily to work, lured

BRIEF HISTORY OF U.S. IMMIGRATION POLICY

1776–1880s: Period of Openness

For almost 100 years after achieving independence, the United States adhered to a policy of virtually unrestricted immigration. As a result, immigration increased steadily, especially after 1840, due to industrial and political transformations that started to occur in the United States and Europe.

1880s–1920s: Period of Restrictiveness

Beginning in 1880s, the United States began to restrict immigration by certain types of foreigners. These early restrictions reduced the flow of immigrants briefly, but immigration picked up again and reached a peak in the first decade of the 20th century. In 1921, Congress passed the Quota Law, which set annual quotas for immigration on the basis of national origin. Partly driven by fears that the influx of unskilled immigrants from Eastern and Southern Europe would negatively affect native-born U.S. workers, the quota system favored immigrants from Northern and Western Europe instead.

1960s–1990s: Period of Reform

In 1965, Congress passed the McCarran-Walter Immigration and Nationality Act (INA), which eliminated the quota system based on national origin. Instead, the INA, which was amended in 1990, set immigration quotas based on the following purposes: (1) family reunification, (2) the need for professional and high-skilled workers from abroad, and (3) increasing so-called diversity immigrants from historically underrepresented countries. No limits were placed on political refugees who faced the risk of persecution in their home countries.

In 1986, Congress passed the Immigration Reform and Control Act (IRCA), which granted legal status to 2.7 million illegal immigrants who were already working in the country. IRCA was also intended to discourage future illegal immigration by imposing sanctions on employers who knowingly hired illegal aliens.

The rapid growth of technology led Congress to pass the Immigration Act of 1990, which authorized the Immigration and Naturalization Service to issue 60,000 H-1B visas each year to applicants with higher education in an effort to attract high-skilled workers to the United States. The number of H-1B visas was increased to 115,000 for 2000.

1996 to Present: Period of Safeguarding National Security

In 1996, Congress passed three laws relating to immigration: the Antiterrorism and Effective Death Penalty Act, the Personal Responsibility and Work Opportunity Reconciliation Act, and the Illegal Immigration Reform and Immigrant Responsibility Act. These laws were intended to prevent terrorist acts as well as to address the issue of welfare eligibility for legal immigrants.

In 2001, in response to the September 11 terrorist attacks, Congress passed the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT) Act, which provided funds for additional border

(*continued*)

(*continued*)

security and gave the U.S. attorney general the authority to detain foreigners who were deemed to pose potential risks to national security.

In 2005–2006 and again in 2010, lawmakers struggled to reform the immigration system by balancing social and economic arguments in favor of increased immigration against security issues and other arguments against immigration. The first effort (2005–2006) failed, but the second (in 2010) gained traction—in both directions—after the state of Arizona passed a restrictive law permitting police officers to stop and question anyone suspected of being in the country illegally.

by the prospects of a higher standard of living, they contribute to the output and economic growth of the country. All these considerations lead some analysts to argue that illegal immigrants may very well make a net positive contribution to the U.S. economy (Ehrenberg and Smith 2006).

Some Key Immigration Policy Issues

Although immigration reform is currently (mid-2010) in a state of flux, President Barack Obama has stated that he is in favor of making changes to the system. He has called for continued enforcement of existing immigration laws at the borders and at the same time has urged lawmakers to explore a guest worker program or something similar to it in order to address the issue of unauthorized foreigners who are already working here. Under the proposed guest worker program from 2005 to 2006, for example, unauthorized foreign-born individuals in the United States with jobs would have had the opportunity to apply for legal immigrant status after working in the country for 6 years and to apply for U.S. citizenship after 11 years. As the new administration takes up this issue, any such specifics could, of course, change.

Another key issue is employer verification of their immigrant workers' legal status. In 2005, for example, a bill passed by the U.S. House of Representatives (but never signed into law) required that all employers submit the Social Security and immigration numbers of their new workers to the relevant government agencies within three days of hiring them. Employers who did not follow these procedures or who otherwise violated immigration laws would, under the bill, be subject to substantial fines up to $25,000. Unauthorized presence in the United States would become a felony, jeopardizing the chances of those who are currently illegal immigrants in the United States to become guest workers or legal residents in the future. One provision of the bill also stipulated penalties of up to five years in prison for those who shield illegal immigrants from apprehension or prosecution by authorities.

In addition to the House bill, the U.S. Senate passed legislation in May 2006 (but again never signed into law) that would have allowed illegal immigrants then living in

the United States for five years or more (about 7 million people) an opportunity to apply for citizenship if they continued to maintain a job, adequately passed background checks, paid up all past fines and back taxes, and enrolled in English classes. Illegal immigrants who lived in the country for two to five years (about 3 million people) would have been required to leave the country briefly and apply for a temporary work visa before returning to the United States as a guest worker. They would eventually be given the opportunity to apply for permanent residency and then U.S. citizenship. Illegal immigrants who lived in the country for less than two years (about 1 million people) would have been required to leave the United States completely but were eligible to apply for the proposed guest worker program (Swarns 2006).

Clearly, the issues of establishing a guest worker program, creating a "path to citizenship" for those who are now in the country unlawfully, expecting employers to share in the responsibility of verifying the status of their employees, and maintaining effective law enforcement with respect to illegal immigration will all form a part of any ensuing House and Senate debates as the matter of reforming immigration is considered anew under the Obama administration.

Some Basic Statistics on the U.S. Immigrant Population

As noted previously, a big part of the immigration debate centers around the impact of immigration on native U.S. workers as well as on how to stem the tide of illegal immigration. So just what are the facts concerning the extent of immigration, both legal and illegal?

The total number of foreign-born residents in the United States in 2005 was estimated to be in the range of 36 to 37 million, making up approximately 12 percent of the country's overall population. This total figure includes 11.5 million individuals who were naturalized U.S. citizens, 10.5 million who were legal immigrants, and between 11 and 12 million who were unauthorized immigrants (Martin 2006). Of course, the current number of foreign-born residents in the United States is the result of annual immigrant flows that have entered the country over the course of many years. Table 1 shows the number of immigrants that have legally entered the United States in each decade since 1821. As Table 1 indicates, immigrant flows into the United States rose steadily throughout the 19th and early 20th centuries, reflecting the nation's essentially open-door immigration policy during its first 100 years of independence. (During this period, the only groups who were subject to significant immigration restrictions were convicted criminals and individuals from Asia; see Ehrenberg and Smith 2006.) While the absolute number of immigrants grew, especially after 1840, the annual rate of immigrant entry for any decade never exceeded 10 per 1,000 U.S. population until the beginning of the 20th century. The U.S. immigration rate reached a peak of 10.4 per 1,000 U.S. population (an annual rate of more than 1 percent of the population) during the first decade of the 20th century, after which it has been declining. Thus, although many who are involved

TABLE 1. Immigration to the United States, 1821–2009

Time Period	Number of Immigrants	Annual Rate (per 1,000 U.S. Population)
1821–1830	143,439	1.2
1831–1840	599,125	3.9
1841–1850	1,713,251	8.4
1851–1860	2,598,214	9.3
1861–1870	2,314,824	6.4
1871–1880	2,812,191	6.2
1881–1890	5,246,613	9.2
1891–1900	3,687,564	5.3
1901–1910	8,795,386	10.4
1911–1920	5,735,811	5.7
1921–1930	4,107,209	3.5
1931–1940	528,431	0.4
1941–1950	1,035,039	0.7
1951–1960	2,515,479	1.5
1961–1970	3,321,677	1.7
1971–1980	4,493,314	2.0
1981–1990	7,338,062	3.1
1991–2000	9,095,417	3.4
2001–2009	9,488,544	3.0

Source: U.S. Department of Homeland Security, *Yearbook of Immigration Statistics, 2009*. Table 1. April 2010. http://www.dhs.gov/files/statistics/publications/LPR09.shtm

in the current debate often refer to the so-called unprecedented surge in immigration, it is important to remember that the percentage of the U.S. population that is foreign born was actually higher in 1910 (at 15 percent) than it is today (at 12 percent) (Martin and Midgley 2003).

One important feature of immigration into the United States is the gradual change over time in the countries of origin of the immigrants. Between the 1960s and the 1990s, the percentage of legal immigrants who were from Europe fell to 13 percent from 40 percent. During the same period, the percentage of immigrants from Latin America increased to 51 percent from 38 percent, while the percentage from Asia increased to 30 percent from 11 percent.

Because a large part of the current debate on immigration centers on the economic impact of immigrants, it is instructive to look at some statistics from the U.S. government's Current Population Survey that reveal some interesting demographic and economic characteristics of the foreign-born population in the United States.

The average age of foreign-born residents in the United States who worked full-time for at least part of the year in 2001 was 39 years, compared to an average age of 41 years for U.S.-born workers. As a group, foreign-born residents accounted for almost 15 percent of all U.S. workers who were employed full-time for at least part of the year in 2001; however, median annual earnings were $24,000 for foreign-born workers, compared to $31,200 for U.S.-born workers. In addition to the changes in the countries of origin, there have been changes in the demographic and economic profiles of recent U.S. immigrants. The foreign-born residents who came to the United States after 1990 tend, on average, to be younger (average age of 32 years), less educated (34 percent do not have a high school diploma compared to 16 percent of U.S.-born residents), and have lower median earnings ($20,000). In 2002, about 16 percent of the foreign-born population earned incomes that were below the official poverty line compared to 11 percent of U.S.-born residents. Almost a quarter (24 percent) of U.S. households that were headed by foreign-born residents received a means-tested federal benefit (i.e., one that uses income level to determine eligibility, such as Medicaid) in 2001 compared to 16 percent of households that were headed by U.S.-born residents (Schmidley 2003; Camarota 2002).

The Extent of Illegal Immigration

For purposes of immigration policy, the U.S. government considers foreigners who are in the country without a valid visa and who are therefore violating U.S. immigration laws to be unauthorized immigrants (also called undocumented or illegal immigrants). It is estimated that 850,000 foreigners entered the United States without authorization in 2005, while other illegal immigrants left the country, became legalized residents, or passed away, so that, on balance, the number of unauthorized foreigners in the United States increased by 400,000 during the year (Passel 2006). It is estimated that anywhere between 350,000 and 500,000 illegal immigrants enter and reside in the United States each year, while many others enter to stay temporarily and then leave within the same year. The U.S. Immigration and Naturalization Service reported 1.4 million apprehensions of illegal aliens in 2001 (an individual may be apprehended more than once during the year for trying to enter illegally, and each incident is reported as a separate apprehension) (Martin and Midgley 2003). And in 2005, 1.2 million individuals were apprehended just along the U.S.-Mexico border (Bailey 2006).

A big reason why illegal immigration into the United States has generated so much concern and controversy is that it has grown dramatically in recent years. In fact, it is estimated that most of the illegal immigrants came to the United States during the last decade: two-thirds have been in the United States for less than 10 years, and 40 percent have been here for less than 5 years. Most of these unauthorized foreigners come from three major regions of the world: over half (56 percent) come from Mexico, 22 percent come from Latin America, and 13 percent come from Asia. Six percent of illegal

immigrants in the United States come from Europe, and 3 percent come from Africa and elsewhere in the world (Passel 2006; Bailey 2006).

Table 2 shows the estimated size of the unauthorized resident population in the United States as well as the 10 states with the largest number of unauthorized foreigners in 1990 and 2000. As Table 2 indicates, the total number of unauthorized foreigners in the United States doubled in the decade from 1990 to 2000, from 3.5 million to an estimated 7 million individuals. Since it is estimated that 11–12 million unauthorized immigrants were residing in the United States in 2005, this means that the number of illegal immigrants increased by another 55–70 percent in the five-year period from 2000 to 2005 alone.

Unauthorized foreigners are not distributed evenly across the country, however. For instance, the top 10 states with the largest number of unauthorized residents accounted for almost 80 percent of the total unauthorized population in the United States in 2000 (Table 2). While California and Texas experienced the largest increase in the absolute

TABLE 2. Estimated Unauthorized Resident Population, Top 10 States, 1990 and 2000

Estimated Unauthorized Resident Population (thousands)*				Percent of Total Unauthorized Population		U.S. Population, 2000 Census	
State of Residence	1990	2000	Percent Change, 1990–2000	1990	2000	Total Population in 2000 (thousands)*	Percent Unauthorized
All States	3,500	7,000	100.0	100.0	100.0	281,422	2.5
California	1,476	2,209	49.7	42.2	31.6	33,872	6.5
Texas	438	1,041	137.7	12.5	14.9	20,852	5.0
New York	357	489	37.0	10.2	7.0	18,976	2.6
Illinois	194	432	122.7	5.5	6.2	12,419	3.5
Florida	239	337	41.0	6.8	4.8	15,982	2.1
Arizona	88	283	221.6	2.5	4.0	5,131	5.5
Georgia	34	228	570.6	1.0	3.3	8,186	2.8
New Jersey	95	221	132.6	2.7	3.2	8,414	2.6
North Carolina	26	206	692.3	0.7	2.9	8,049	2.6
Colorado	31	144	364.5	0.9	2.1	4,301	3.3
Total, top 10 states	2,978	5,590	87.7	85.1	79.9	136,182	4.1
All other states	522	1,410	170.1	14.9	20.1	145,240	1.0

*The population figures shown must be multiplied by 1,000. Thus, for example, 3,500 becomes 3.5 million.

number of unauthorized foreigners, the states that showed the largest percentage increase over the last decade were North Carolina, Georgia, and Colorado.

Of the 11–12 million unauthorized immigrants in the United States in 2005, it is estimated that about 7.2 million were in the labor force, accounting for almost 5 percent of all U.S. workers. Unauthorized foreign-born workers make up at least one-fifth of the total work force in each of the following labor categories: agricultural workers (29 percent), grounds maintenance (25 percent), construction laborers (25 percent), maids (22 percent), painters (22 percent), cooks (20 percent), and hand packers (20 percent) (Passel 2006). Additionally, and perhaps somewhat contrary to popular perception, it is estimated that 20 percent of computer hardware engineers in the United States are illegal immigrants (Bailey 2006).

Conclusion

Immigration is an important national issue worthy of serious and objective discussion. Given the many controversial aspects surrounding the nation's immigration policy, it is inevitable that there will be disagreement and highly unlikely that any single comprehensive reform measure will satisfy the preferences of all who are engaged in the debate. Indeed, the debate over immigration policy has gone on for a long time and will likely continue with every change in domestic or international circumstances. The important thing to keep in mind is that any immigration policy should carefully balance the interests of all those who will be affected by the policy since the livelihood and standard of living of millions of individuals, both native and foreign-born, will be affected.

See also **Immigration and Employment Law Enforcement (vol. 2); Immigration Reform (vol. 3)**

Further Reading

Bacon, David, *Illegal People: How Globalization Creates Migration and Criminalizes Immigrants.* Boston: Beacon Press, 2008.

Bailey, Holly, "A Border War." *Newsweek* (April 3, 2006): 22–25.

Borjas, George J., "The Economics of Immigration." *Journal of Economic Literature* 32 (1994): 1667–1717.

Borjas, George J., *Heaven's Door: Immigration Policy and the American Economy.* Princeton, NJ: Princeton University Press, 2001.

Camarota, Steven A., "Immigrants in the United States—2002." *Backgrounder* (November 2002). http://www.cis.org

Degler, Carl N., *Out of Our Past: The Forces that Shaped Modern America,* 2d ed. New York: Harper & Row, 1970.

Ehrenberg, Ronald G., and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy.* Boston: Pearson Addison-Wesley, 2006.

Lee, Ronald, and Timothy Miller, "Immigration, Social Security, and Broader Fiscal Impacts." *American Economic Review* 90 (2000): 350–354.

Martin, Philip, *The Battle over Unauthorized Immigration to the United States.* 2006. http://www.prb.org/Articles/2006/TheBattleOverUnauthorizedImmigrationtotheUnitedStates.aspx

Martin, Philip, and Elizabeth Midgley, "Immigration: Shaping and Reshaping America." *Population Bulletin* 58 (2003): 30–31.

Orrenius, Pia, "On the Record: The Economics of Immigration." *Southwest Economy* (March/April, 2006).

Passel, Jeffrey, *The Size and Characteristics of the Unauthorized Migrant Population in the United States.* Research Report 61. Washington, DC: Pew Hispanic Center, 2006.

Schmidley, Dianne, "The Foreign-Born Population in the United States: March 2003." *Current Population Reports* 20 (2003).

Smith, James P., and Barry Edmonston, eds., *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration.* Washington, DC: National Academy Press, 1997.

Stout, Robert Joe, *Why Immigrants Come to America: Braceros, Indocumentados, and the Migra.* Westport, CT: Praeger, 2008.

Swarns, Rachel L., "Senate, in Bipartisan Act, Passes an Immigration Bill." *New York Times* (May 26, 2006). http://www.nytimes.com

INCOME TAX, PERSONAL

David N. Hyman

All working Americans are familiar with the April 15 deadline for filing personal income tax returns. Taxes on personal income accounted for 44 percent of total revenue raised by the federal government in the United States in 2009. All but seven state governments also tax personal income, which now accounts for 30 percent of state revenue. Many view income as a good measure of ability to pay taxes, and the income tax enjoys broad political support in the United States. However, it is also reviled as having become incredibly complex, and there are continual calls to reform the income tax to make it fairer and simpler and to reduce the distortions it causes in economic decision making.

To understand the impact of the income tax on our decisions and the way its burden is distributed among taxpayers, it is first necessary to define the concept of income.

What Is Income?

Income is a flow of purchasing power from earnings of labor, capital, land, and other sources that a person receives over a period of one year. The most comprehensive definition of income views it as an annual acquisition of rights to command resources. Income can be used to consume goods and services during the year it is received, or it can be stored up for future use in subsequent years. Income stored up for future use is saving, which increases a person's net worth (a measure of the value of assets less debts). The most comprehensive measure of income views it as the sum of annual consumption plus savings, where savings is any increase in net worth that can result from not spending

TAX EXPENDITURES

Every adjustment, exemption, exclusion, and deduction from the gross income of taxpayers reduces the amount of income that is actually taxed. The many special provisions of the personal income tax code that make taxable income less than actual income therefore reduce the revenue collected by the U.S. Treasury. Indirectly, the reduction in revenue ends up increasing the after-tax income of taxpayers who engage in those transactions for which the tax code affords preferential treatment. This loss in income tax collected can be thought of as subsidizing the activities that people engage in to reduce their income tax burdens.

The federal government is required by law to estimate this loss in income tax revenue and report the losses as tax expenditures, which are indirect subsidies provided through the income tax. In effect, tax expenditures are a form of federal government spending financed by loss in tax revenue. The table below shows selected tax expenditures resulting from provisions of the federal income tax code reported by the Office of Management and Budget (OMB):

Selected Tax Expenditure Resulting from Preferential Treatment of Income (Fiscal Year 2007)

Provision	Revenue Loss (in Billions of Dollars)
Exclusion of employer contributions for medical insurance premiums	146.8
Capital gains exclusion on home sales	43.9
Deductibility of mortgage interest on owner-occupied homes	79.9
Deductibility of property taxes on owner-occupied homes	12.8
Exclusion of interest on public purpose state and local bonds	29.6
Deductibility of nonbusiness state and local taxes (other than taxes on owner-occupied homes)	27.2

Source: Office of Management and Budget, *Budget of the United States, Fiscal Year 2007.* http://www.whitehouse.gov/omb/budget/fy2007

This is just a small selection of the more than $800 billion of tax expenditures from special provisions of the federal income tax reported each year by OMB. The exclusion of employer-provided medical insurance from the taxable income of employees subsidizes health expenditures. The exclusion of capital gains on home sales subsidizes home ownership in the United States, as does the deductibility of mortgage interest and property taxes. These three tax expenditures together subsidized homeowners in the United States by nearly $140 billion in 2007. Indirectly, the deductibility of property taxes also subsidizes local government by making it easier to get tax increases approved because

(*continued*)

(*continued*)

those taxes mean that part of their burden is shifted to the federal government through reduced federal tax collection.

Similarly, OMB views deductibility of all other nonbusiness state and local taxes as indirect aid to state and local government. Exclusion of interest on state and local debt from federal taxable income makes it possible for these governments to borrow at lower rates than otherwise would be the case. The nearly $30 billion in revenue that the federal government did not collect because of this special provision is also aid to state and local governments.

Tax expenditures make it clear that the personal income tax is used as a mechanism to promote social outcomes, such as home ownership, subsidized health care, and aid to state and local governments, to name a few, in addition to raising revenue to finance federal expenditures. The use of the personal income tax in this way is, in part, responsible for its complexity. As proposals to reform the tax code are considered, those who benefit from these tax expenditures often resist their abolition.

earnings and other forms of income or from increases in the market value of such assets as stocks, bonds, or housing that a person might own. The annual increase in the value of a person's existing assets are capital gains, which can either be realized (converted to cash) by selling an asset or unrealized (not turned into cash in the current year).

A comprehensive income tax would be levied on the sum of a person's annual consumption plus savings. Consumption plus savings in a given year would represent the uses of the taxpayer's earnings and other sources of income.

A Flat Rate Income Tax

The simplest form of an income tax would be a flat rate tax. Individuals would report their income based on the comprehensive definition discussed previously, and a flat rate would be levied to collect the tax. For example, if, through the political process, it was decided to raise all revenue from the income tax and that a 15 percent rate on income would raise enough revenue, then every citizen earning income would have to pay 15 percent tax on that income to the government to finance public services. All income, irrespective of its source or use, would be subject to the tax. Tax forms would be very simple, with only three lines: one to report income, one to indicate the tax rate, and the other to show the product of the tax rate when multiplied with income. If your income was $30,000 this year, you would multiply that income by 0.15 if the tax rate was 15 percent, and your tax bill would be $4,500.

Under a flat rate comprehensive income tax, those with higher income would pay proportionately higher taxes. For example, a person with $10,000 annual income would have a tax bill of $1,500. A person with an annual income of $100,000 would pay

$15,000 in taxes, while a person with $1 million in income would pay $150,000 in taxes. So under a flat rate income tax, the rich would pay more than the poor, even though the tax rate is the same for all taxpayers.

Under a comprehensive income tax, there would be no need for a separate tax on corporation income. Corporations are owned by their stockholders. A corporation's net income would simply be allocated to shareholders in proportion to their share of ownership. For example, suppose the XYZ Corporation has 100,000 shares of its corporate stock outstanding and earned $1 million in profit this year. If you own 10,000 shares of the outstanding stock, amounting to a 10 percent share in the ownership of the corporation, then 10 percent of the $1 million profit, or $100,000, would be allocated to you, and you would have to include this amount in your personal income. Under a 15 percent flat rate tax, your tax liability on your share of the corporation's profit would be $15,000 this year.

The flat rate income tax would be easy to administer. Time spent figuring taxes and keeping records would be minimal, and there would be no need for an army of tax accountants and lawyers to help people wade through complex tax laws.

However, even a flat rate income tax can cause distortions in behavior that could impair the efficiency of operation of the economy. The tax would reduce the net return to work and to saving and investment. This is easiest to see if taxes are withheld from earnings as those earnings are received during the year. If you earn $3,000 per month from your job, and the 15 percent income tax is withheld from your paycheck, then your net earnings from work after tax would be $3,000 minus $450, to give you net pay of $2,550. When deciding how many hours to work, you will base your choice on your net pay rather than the gross amount actually paid by your employer. The reduction in the net wage or salary due to the income tax could impair incentives to work.

The flat rate tax would also reduce the net return to saving and investment. All interest earned on savings, all corporate profits, capital gains, and any other income from use of capital would be taxable. The net return to saving and investment would fall below the actual gross return earned. Because saving and investment decisions are made on the basis of the net, after tax, return, there is the potential for a decline in saving and investment below the amounts that would prevail without taxation.

For example, if you have a savings account in a bank and earn 5 percent interest, then you will have to pay tax on the interest you earn during the year. With a 15 percent flat rate tax, your net interest would amount to 4.25 percent, calculated by subtracting 15 percent of the 5 percent from the gross interest earned:

$$\text{net interest} = \text{gross interest } (1 - \text{tax rate}).$$

In this case, your net interest earned is 85 percent of the 5 percent interest rate.

If the lower net interest rate decreases the incentive to save, then total saving in the nation will decline. As saving declines, funds financing for investment will become

HOW IS THE BURDEN OF PAYING THE FEDERAL PERSONAL INCOME TAX DISTRIBUTED?

The federal personal income tax has a progressive tax rate structure but is also riddled with special provisions that allow taxpayers to avoid paying taxes by taking advantage of the various adjustments, exclusions, exemptions, and deductions as well as tax credits. Do the effects of special provisions cancel out the impact of the progressive tax rates on the distribution of the payments of taxes? In other words, does the progressive income tax really result in the rich paying higher tax rates than the poor?

To find out, the Congressional Budget Office (CBO) conducted an analysis of the distribution of the tax burden of the federal personal income tax for 2003, a year when major tax rate cuts and other changes in the tax code became effective. The study began with a comprehensive measure of income and ranked taxpayers according to the amount of income they earned. Taxpayers were grouped into quintiles, starting with the fifth with the lowest income. The CBO then estimated effective (actual) income taxes paid under the provisions of the income tax code and divided total taxes paid in each quintile of households (adjusted for size) ranked according to their incomes by total income earned in that quintile. A household consists of people who share housing, regardless of their relationship (see Congressional Budget Office 2005 for details of adjustments and comprehensive measurement of income).

The following table shows the results of the CBO study.

Effective Federal Personal Income Tax Rates, 2003

Income Category	Effective Tax Rate (%)
Lowest quintile	–5.9
Second quintile	–1.1
Middle quintile	2.7
Fourth quintile	5.9
Highest quintile	13.9

Source: Congressional Budget Office, U.S. Congress, *Historical Effective Federal Tax Rates: 1979 to 2003.* December 2005. http://www.cbo.gov/ftpdocs/70xx/doc7000/12–29-FedTaxRates.pdf

Notice that the two lowest quintiles actually have negative effective tax rates because the earned income tax credit for low-income taxpayers results in net payments to these households from the U.S. Treasury instead of collection of income taxes.

The results of the study show that the distribution of the burden of paying federal personal income taxes is such that upper-income groups do indeed pay higher average tax rates than lower-income groups in the United States. The estimated average effective rate for all households in 2003 was 8.5 percent. The top 1 percent of households ranked according to income were estimated to pay an average effective tax rate of 20.6 percent in 2003. Effective tax rates are progressive.

scarcer, and market interest rates could rise, discouraging investment. Investment could also directly decline because the tax will be levied on all capital income, including corporate profits, rents, and capital gains, decreasing the net return to investment after taxes. A decline in investment could slow the rate of growth of the economy and decrease future living standards by contributing to a decline in the rate of growth of wages and salaries as worker productivity growth slows because of the slowdown in the supply of new capital equipment and technology that investment makes possible.

In short, a flat rate income tax could reduce the size of the economy by contributing to a decrease in work effort. Over the longer term, the tax could also slow economic growth if it adversely affects saving and investment.

The Personal Income Tax in Practice

The personal income tax in the United States does not comprehensively tax all income. Instead, because tax law allows a host of adjustments, exemptions, deductions, and exclusions from income, taxable income falls far short of total income. For tax purposes, gross income includes wages and salaries, taxable interest, dividends, realized capital gains (although long-term gains on many assets are taxed at preferentially low rates), rents, royalties, most pension income, and business income from proprietorships and partnerships. Taxpayers can, to some extent, control their income tax bills by adjusting the sources and uses of their income. This leads to distortions in behavior as people make decisions based, in part, on the tax advantages of engaging in particular economic transactions, such as buying homes; providing employees with compensation in the form of nontaxable fringe benefits instead of cash; or buying municipal bonds, for which interest payments are exempt from federal taxation.

The federal personal income tax uses a progressive tax rate structure. Instead of one flat rate, there are several rates. The tax rate applied to additional income after a certain amount is received is called the taxpayer's marginal tax rate. Low marginal tax rates apply to lower ranges of income. Each range of income is called a tax bracket, and, as income increases, the amounts falling into higher tax brackets are taxed at higher marginal tax rates. Many citizens believe that a progressive tax rate structure is fairer than a flat rate tax because it subjects those with higher incomes to higher tax rates.

As of 2010, the federal income tax had six tax brackets subject to positive tax rates, with income in the highest bracket subject to a 35 percent tax rate. The lowest positive tax rate was 10 percent. Intermediate brackets were 15, 25, 28, and 33 percent. These tax rates are levied on taxable income. Under a progressive income tax system, marginal tax rates exceed average tax rates. Average tax rates can be calculated by simply dividing taxes due by taxable income. For example, a single taxpayer with a taxable income of $74,200 in 2006 would pay $15,107.50 in federal income tax. This taxpayer's average tax rate would be $15,107.50/$74,200 = .2036 = 20.36 percent. However, the taxpayer would be at the beginning of the 28 percent tax bracket with that amount of income, and each extra

dollar of taxable income would be subject to a 28 percent marginal tax rate. Marginal tax rates are important for determining the impact of taxes on economic decisions, because they influence the net return to going to the effort of earning additional income.

Most taxpayers are entitled to personal exemptions and a standard deduction or can itemize deductions. Tax credits for such expenses as child care can be directly subtracted from tax bills. The standard deduction varies with filing status (single, married filing jointly or separately, or head of household). Adjustments for contributions to retirement accounts and other expenses can also reduce the portion of gross income that is subject to tax.

The personal exemption, the standard deduction, and the beginning points for each tax bracket are adjusted for inflation each year. In 2010, a taxpayer could claim a personal exemption of $3,650 if not claimed as a dependent on some other tax return. Taxpayers can also claim personal exemptions for dependents. A single taxpayer could claim a standard deduction of $5,700 in 2010 or itemize deductions for such expenses as state and local income taxes, property taxes, charitable contributions, interest paid on mortgages, and a host of other expenses eligible to be itemized under the income tax code. If the single taxpayer chooses to take the standard deduction and is eligible for a personal exemption, then $9,350 of gross income would not be taxable. (Under the tax law prevailing in 2010, taxpayers with relatively high incomes have their personal exemptions and itemized deductions reduced, and eventually eliminated, as income increases.)

Finally, there are provisions of the U.S. tax code that result in some low-income taxpayers, particularly those with dependent children, paying negative tax rates. The provision is called the earned income tax credit (EITC) and allowed as much as $5,666 per year to be paid to a low-income taxpayer with dependent children by the U.S. Treasury in 2010. The EITC is a way of using the tax system to increase the incomes and living standards of low-income workers through a tax credit that is payable to the worker by the U.S. Treasury.

The actual personal income tax in the United States can affect incentives to work, save, and invest, just like the flat rate income tax. However, because of complex provisions allowing taxpayers to influence their taxable income tax bills by adjusting the sources and uses of their income, the income tax in the United States effectively subsidizes some activities over others. Provisions in the tax code allowing homeowners to deduct interest on mortgages and property taxes on homes as well as those exempting up to $500,000 in capital gains from the sale of a principal residence from taxation encourage investments in housing. Reduced taxation of long-term capital gains benefits upper-income taxpayers with assets and could encourage them to invest. Exemption of some fringe benefits, such as employer-provided health insurance, encourages compensation of workers in that form instead of in taxable wages. In addition, the complexity of the tax code imposes a burden on taxpayers to keep up with the tax law, keep records, and pay professional tax consultants to help them in filing their tax returns.

Issues and Problems in Income Taxation and Prospects for Reform of the Tax Code

The federal personal income tax has been reformed many times. Each time, it seems to get more complex. Reforming the income tax code is very difficult because there will be both gainers and losers in the process, and the losers use political action to prevent changes that will make them worse off. The most extreme reform would be to move to a flat rate income tax. If this were done, all exemptions and deductions from income would be eliminated, and the average tax rate could be reduced because a much larger portion of actual income received would be subject to taxation. Under a flat rate tax, the average tax rate is equal to the marginal tax rate. A single lower marginal tax rate could reduce the distortions in decision making that result from the impact of taxes on net returns to work and saving. However, many object to a shift to a flat rate tax, because it would lower the tax rate for upper-income individuals while raising the tax rate for many lower-income taxpayers.

A less extreme approach to tax reform would eliminate some exemptions, deductions, and exclusions from taxable income to allow lower marginal and tax rates while retaining a progressive tax rate structure. For example, the report of the President's Advisory Panel on Federal Tax Reform in 2005 recommended limiting deductions for interest on home mortgages and eliminating deductions for state and local income and property taxes. Elimination of deductions generates tax revenue and allows tax rates across the board to decrease without tax revenue collected falling. However, such changes could have adverse effects on homeowners. As the tax advantages to homeownership are reduced, the demand for homes could decline, and this would decrease home prices, reducing the net worth of many households. The President's Advisory Panel on Federal Tax Reform recommended that the mortgage interest deduction be replaced with a tax credit for such interest that would be available to all taxpayers regardless of whether they itemize deductions. The panel also recommended a cap on the amount of interest that could be claimed as a credit so that the benefit to upper-income households with expensive homes and mortgages in excess of $300,000 would be reduced. This could sharply reduce demand for luxury homes but could increase demand and prices for modest homes.

Similarly, the current deduction for state and local taxes cushions those tax bills for those who itemize deductions by, in effect, allowing them to pay some of those bills through a reduction in federal tax liability. If the deduction were eliminated, it would be more difficult for state and local governments, particularly those whose tax rates are already high, to raise tax rates in the future and could result in political action to decrease tax rates.

The personal income tax system has been used as a means of encouraging individuals to favor one activity over another through its extensive use of adjustments, exemptions, deductions, and credits. This, too, has contributed to the complexity of the code. Congress

often enacts tax deductions or credits for such activities as child care or education but limits availability to upper-income households. As a result, the amount of the benefits are often reduced as a taxpayer's adjusted gross income increases, and the tax forms necessary to calculate the reduction in credits or deductions are often quite complex.

Another reform often suggested is to change the tax system to encourage saving and investment. Because of concern about the impact of the current system of income taxation on incentives to save and invest, some economists advocate allowing taxpayers to deduct all of their savings from taxable income and exempting interest from taxation unless it is withdrawn. In effect, such a scheme would tax only consumption, because income less saving is equal to consumption.

Conclusion

The tax reform process is inevitably tied to politics, because it always results in some people gaining while others lose. The prospects for a radical reform of the tax code, such as a shift to a flat rate tax, are remote. Instead, small, incremental changes in tax deductions and credits, and simplification of complex provisions of the tax code are more likely. Elimination of these special provisions that reduce revenue can allow across-the-board decreases in average and marginal tax rates and reductions in the distortions in decision making from the income tax.

See also **Consumer Credit and Household Debt; Corporate Tax Shelters; Debt, Deficits, and the Economy; Government Subsidies**

Further Reading

Boortz, Neal, and John Linder, *FairTax, the Truth: Answering the Critics.* New York: Harper, 2008.

Cordes, Joseph, Robert D. Ebel, and Jane G. Gravelle, eds., *The Encyclopedia of Taxation and Tax Policy,* 2d ed. Washington, DC: Urban Institute Press, 2005.

Diamond, John W., and George R. Zodrow, *Fundamental Tax Reform: Issues, Choices, and Implications.* Cambridge, MA: MIT Press, 2008.

Hyman, David N., *Public Finance: A Contemporary Application of Theory to Policy,* 10th ed. Mason, OH: South-Western College Publishing, 2010.

Slemrod, Joel, and Jon Bakija, *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes.* Cambridge, MA: MIT Press, 2008.

Steuerle, C. Eugene, *Contemporary U.S. Tax Policy,* 2d ed. Washington, DC: Urban Institute, 2008.

INTELLECTUAL PROPERTY RIGHTS

Jason A. Checque and Michael Shally-Jensen

Historically, ideas have changed the world. They impact cultures, governments, and religions. Ideas also shape businesses on many different levels, influencing marketing,

management, and operations decisions on a daily basis. Today, businesses operate in an ever-changing global market, requiring access to information via high-speed communications. The explosion of technological innovation has increased competition and forced businesses to find alternate means to generate profits.

For example, in 1999, Research in Motion Ltd. (RIM), an Ontario-based firm that designs and manufactures wireless mobile devices, introduced the BlackBerry wireless platform (commonly called a BlackBerry). The BlackBerry is a handheld palm computer that uses a radio frequency technology to allow millions of users to instantly access their e-mail, phone messages, Internet, and business data. The introduction of the BlackBerry revolutionized communication capabilities for corporate executives, small businesses, elected officials, and law enforcement agencies. In 2001, NTP Inc., a small patent holding company, filed a patent infringement lawsuit against RIM. NTP claimed that it held the patents to the radio frequency technology used for the BlackBerry and feared that RIM misappropriated the patents without paying royalties. In 2002, a federal jury agreed that RIM had infringed on NTP's patents. In 2003, the court entered a final judgment in favor of NTP and imposed a permanent injunction against RIM for the further manufacture or sale of BlackBerry products. The injunction was stayed pending RIM's appeal. In January 2006, the U.S. Supreme Court declined to hear RIM's appeal (Locy 2006; Spencer and Vascellaro 2006).

In March 2006, with an impending shutdown of all BlackBerry products, NTP and RIM settled out of court for $612 million before the trial judge issued a final opinion regarding the form of injunctive relief. The settlement saved approximately 4 million users from life without their so-called CrackBerries. In May 2006, Visto Inc. filed a patent infringement lawsuit against RIM, alleging that it held the patents to the e-mail technology used in BlackBerry products (Wong 2006; "BlackBerry Maker" 2006). The case was settled in July 2009. However, in January 2010, Motorola filed a request with the International Trade Commission to ban BlackBerry imports, alleging that the device's early-stage innovations drew on Motorola patents. Meanwhile, BlackBerry continues to dominate the business smart phone market, capturing a 61 percent share (Rysavy 2009).

The lawsuits against BlackBerry manufacturer RIM provide insight on two important concepts: (1) the importance of innovation in technology, usually in the form of intellectual property, and (2) the importance of protecting those innovations from piracy.

The Importance of Intellectual Property

The idea of protecting intellectual property dates back to ancient times. In Greek mythology, Prometheus arguably committed an infringement when he stole fire from the Olympian gods to give to mankind. Zeus punished Prometheus by chaining him to a mountainside, where an eagle devoured his rejuvenated liver each day. As a consequence of Prometheus's actions, mankind still has fire to the present day.

During the Middle Ages, protection for intellectual property was granted from the crown or a sovereign. Publishing patents were granted to printers of books like the Bible or legal treatises (factors include relative expense and /or politics). Additionally, the Stationers' Company in England maintained a monopoly of registered books, where the government allowed a printer or bookseller, but not the author, copyright protection on a written work. Publishers paid large sums of money to authors not to sell their works (e.g., John Milton's contract for the sale of *Paradise Lost* in 1667) (Posner 2009).

Modern protections of intellectual property formed with the spread of the Industrial Revolution. In 1710, England instituted the first modern copyright law (Posner 2009). At the Constitutional Convention in 1788, the Founding Fathers recognized the importance of intellectual property when they granted Congress the power to "promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors, the exclusive Right to their respective Writings and Discoveries" (Friedman 2004, 426). In comparison with imperial China, "Chinese culture placed continuity with the past, and its suspicion of novelty, both of which encouraged copying" (Posner 2009, 393).

Congress established the Patent and Trademark Office under the auspices of the Department of Commerce. One of the deputy undersecretaries of commerce is the deputy undersecretary of commerce for intellectual property. The Patent and Trademark Office "examines patent and trademark applications, issues patents, registers trademarks, and furnishes patent and trademark information and services to the public" (Garner 1999, 1149). In 1879, Eaton S. Drone published *A Treatise on the Law of Property in Intellectual Productions,* one of the earliest hornbooks on intellectual property law.

Intellectual property is divided into four categories: (1) patents (ideas), (2) copyrights (expressions), (3) trademarks (source indicators), and (4) trade secrets (business processes).

TOP 10 COMPANIES RECEIVING U.S. PATENTS IN 2008

Corporation	Number of Patents
1. IBM	4,169
2. Samsung Electronics	3,502
3. Canon Kabushiki Kaisha	2,107
4. Microsoft Corp.	2,026
5. Intel Corporation	1,772
6. Toshiba Corp.	1,575
7. Fujitsu Ltd.	1,475
8. Matsushita Electric Industrial Co.	1,469
9. Sony Corp.	1,461
10. Hewlett-Packard	1,422

Source: U.S. Patent and Trademark Office, "Patenting by Organizations 2008."

Patents

A patent is defined as the "exclusive right to make, use, or sell an invention for a specified period…granted by the federal government to the inventor if the device or process is novel, useful, and non-obvious" (Garner 1999, 1147). In essence, a patent is monopoly granted by the government for a finite amount of time, despite the general premise that monopolies are disfavored in law or public policy.

Most patents cover functional discoveries (known as utility patents, which last 20 years) and original nonfunctional ornamental designs (known as design patents, which last 14 years), but the Plant Patent Act of 1930 expanded patent protection to newly "discovered and asexually reproduced any distinct and new variety of plant" as long as the plant is a product of "human ingenuity and research" (Friedman 2004, 428). Patents cannot be renewed. Frequently, patent owners will improve a product and receive a new patent (e.g., if the patent on automobile brakes expired but the patent holder improved the brakes with an antilock braking system) (Emerson 2009). A common example of a utility patent is computer software or a process like pasteurization. Design patents are ornamental or distinctive in nature but do not improve the functionality of the product. Examples of a design patent are the shape of the Coca-Cola bottle or the Volkswagen Beetle. Design patents are similar to trade dress (Stim 2009).

Copyright

A copyright is defined as a "property right in an original work of authorship (such as literary, musical, artistic, photographic, or film work) fixed in any tangible medium of expression, giving the holder the exclusive right to reproduce, adapt, distribute, perform, and display the work" and must be creative (an exercise of human intellect) (Garner 1999). Although not required, owners of the copyright can enhance their legal rights by placing a copyright symbol (©) on the work and registering it with the U.S. Copyright Office (Stim 2009).

The rights attributable to a copyright expanded greatly in 1903 after the U.S. Supreme Court ruled that advertisements were protected under the Copyright Act. Thereafter, the rights applied to movies, piano rolls and phonograph records, radio and television, photocopying machines, music downloaded from the Internet, and computer software (Friedman 2004). In the late 1990s, Congress extended copyright protection to the life of the author plus 70 or 95 years (formally 50 or 75 years) after heavy lobbying by the Walt Disney Company. In 1998, the Digital Millennium Copyright Act (DMCA) was enacted to protect the burgeoning software businesses and to comply with the treaties signed at the World Intellectual Property Organization (WIPO) Geneva Conference in 1996. Specifically, the DMCA criminalized unauthorized pilfering of computer software, manufacture of code-cracking devices, and subterfuge around antipiracy measures and required Internet companies that performed services like music downloading

(e.g., Kazaa, Napster, Apple iTunes) to pay licensing fees to record companies (Duboff 2002; Emerson 2009).

Trademark

A trademark is defined as a "word, phrase, logo, or other graphic symbol used by a manufacturer or seller to distinguish its product or products from those of others. The main purpose of a trademark is to guarantee a product's genuineness. In effect, the trademark is the commercial substitute for one's signature. To receive federal protection, a trademark must be (1) distinctive rather than merely descriptive, (2) affixed to a product that is actually sold in the marketplace, and (3) registered with the U.S. Patent and Trademark Office" (Garner 1999, 1500). Once a trademark is registered, it is valid for the life of the use of the trademark, as long as it is renewed every 10 years. Trademarks are classified into five categories regarding their inherent distinctiveness: (1) unique logos or symbols (such as the marks used by furniture makers and silversmiths), (2) created or fanciful marks (such as Exxon or Kodak), (3) common or arbitrary marks (such as Olympic for paints and stains or Target for retail sales), (4) suggestive or descriptive marks (such as Chicken of the Sea tuna or Oatnut bread), and (5) generic or common marks that have lost distinctiveness (such as aspirin or elevator). Generic or common marks do not receive trademark protection. Products of distinctive shape may be protected under a concept called trade dress (such as the packaging of a product or the motif used by national chain stores) (Stim 2009).

In 1905, Congress passed legislation to regulate trademarks based on their power to monitor interstate and foreign commerce. In 1946, Congress approved the Lanham Act to codify existing trademark law and afford further protection to businesses from infringement (Friedman 2004).

Trade Secret

A trade secret is defined as confidential business information that is designed to maintain an advantage over competitors. The information can appear as a formula, pattern, process, compilation, method, or program. As a trade secret, the information derives value because it grants a distinct advantage to the business owner, and the business owner implements reasonable tactics to maintain its secrecy. This is accomplished by restricting access to the information (to documents and /or areas where documents are stored), implementing confidentiality and nondisclosure agreements with employees, and preparing appropriate form agreements (Garner 1999; Duboff 2002; Emerson 2009).

The Consequences of Piracy to Business

The United States is the world's largest exporter of intellectual property, including movies and music (Friedman 2004). Piracy of intellectual property costs businesses and

consumers $250 billion and 750,000 jobs each year (U.S. Patent and Trademark Office 2006). Nonmonetary losses to piracy are "fame, prestige, the hope of immortality, therapy and inner satisfaction" (Posner 2009, 390). Piracy or infringement is the illegal reproduction or distribution of intellectual property (not by the exclusive or registered owners) protected by copyright, patent, or trademark law (Garner 1999). Piracy has been especially rampant in the communications, music, pharmaceuticals, and software industries. The important question determined by courts in most infringement actions is who (such as an independent inventor or corporate employee) or what (such as a corporation or organization) has ownership of intellectual property, whether it is an idea, expression, source indicator, or business process. Therefore it is imperative for businesses and government to protect intellectual property and develop appropriate commercial and legal strategies to implement that protection.

Protection of Intellectual Property Rights Internationally

Despite the protections afforded by the Constitution and legislation by Congress, infringement is on the rise, especially outside the United States. U.S. companies have filed infringement cases against China-based companies and seek protection from pirates in Latin America, Russia, and other parts of Asia. Once a patent, copyright, or trademark is registered in the United States, the registrar, in essence, becomes the owner and is granted exclusive rights to use that patent, copyright, or trademark within the United States. The registrar may grant a license or sell its interest to another party, domestic or foreign. With the advent of the global economy, industrialized nations and worldwide organizations have pushed for standardized intellectual property protection applicable to every participating country. The most common method to standardize that protection is through the use of treaties and agreements.

For example, agreements with other nations, such as the North American Free Trade Agreement, passed in 1994, strengthened patent and copyright protection in Mexico. Mexico agreed to strengthen its intellectual property laws and honor pharmaceutical patents for 20 years. Treaties like the Patent Cooperation Treaty and the Paris Convention allow U.S. inventors to file for patent protection in selected industrial nations if the inventor files the proper paperwork and fees within a certain time frame. The standards differ from country to country (Stim 2009). In most countries, intellectual property protection begins when it is registered, not on the date it was created or invented (which is true in the United States). In 2005, Congress considered (but did not enact) legislation that would change the date of protection to the date of registration, as in most international markets.

Many patent holders focus on protecting their rights in the United States and file international patents in the European Union and/or Japan, although the benefit of filing patent applications in China, India, and Russia will outweigh the cost in the near future. If infringed goods enter the United States, the owner can contact customs officials to

confiscate and destroy the contraband. Likewise, once registered in a foreign country, U.S. registrars can be sued by the host country for alleged infringements, as a China-based corporation did in February 2006 (Parloff 2006). The hope by business analysts is that this type of litigation will force and encourage host countries to seriously police patent infringement.

Copyright protection is stronger internationally than patents because of various treaties like the Uruguay Round Agreement Act of 1994, the WIPO Geneva Conference of 1996 (which extended the Berne Convention), and the DMCA of 1998 (Emerson 2009). But copyright protection is not international because a country signs one of the treaties or agreements. Experts recommend that companies file for trademark protection as well as patent protection (e.g., Reebok in Uruguay) (Bhatnagar 2006).

An additional fear of U.S.-based companies doing business overseas is fighting so-called third-shift products, which are produced by an authorized manufacturer but produced in excess of the number agreed on in the contract. Often, the excess product is sold on the black market. Courts have a difficult time declaring those products counterfeit, because it is nearly impossible to tell the difference or whether that particular product was within the contract (Parloff 2006).

Legal Relief: Infringement Causes of Action, Injunctions, and Contracts

Today, litigants file two types of lawsuits: (1) an infringement cause of action, which seeks monetary damages and a form of injunctive relief, and (2) a breach of contract action. If someone files an infringement lawsuit, the litigant usually requests the court to issue a restraining order or injunction and the awarding of monetary damages, fines, lost royalties, and/or attorney's fees (Stim 2009).

An injunction is a "court order commanding or preventing an action. To get an injunction, the complainant must show that there is no plain, adequate, and complete remedy at law and that an irreparable injury will result unless the relief is granted" (Garner 1999, 788).

A contract is an "agreement between two or more parties creating obligations that are enforceable or otherwise recognizable at law (a binding contract)" (Garner 1999, 318).

Today, courts interpret contracts narrowly by considering the contractual text and limit most types of extrinsic evidence like the contracting parties' intentions, special meaning of words, and/or trade usage of the industry. The court will regard extrinsic evidence only if the contract is vague or ambiguous (Posner 2009). If a plaintiff proves a breach of contract action, the usual remedy is monetary damages to make the plaintiff whole (returning the plaintiff to his or her precontract status). Specific performance is an unusual remedy in such situations.

If criminal behavior is suspected, it should be reported to the proper prosecution bodies—namely, the federal government or local authorities. The types of criminal charges

EXAMPLES OF LAWSUITS DEALING WITH INTELLECTUAL PROPERTY RIGHTS

1. One of the first intellectual property cases heard by the U.S. Supreme Court dealt with copyright infringement of the publishing rights to its own cases: *Henry Wheaton and Robert Donaldson v. Richard Peters and John Grigg* (1834). Henry Wheaton and Robert Donaldson (plaintiffs), located in Philadelphia, Pennsylvania, were under contract to publish the cases decided by the U.S. Supreme Court, a right that they purchased from a prior publisher. One of the plaintiff's responsibilities was to provide a volume to the secretary of state, located in New York City. Richard Peters and John Grigg (defendants) were sued under the premise that they sold condensed versions of the U.S. Supreme Court reporters in New York City. The plaintiffs sought injunctive relief, but the U.S. Supreme Court ruled that "no reporter of the Supreme Court has, nor can he have, any copyright in the written opinions delivered by the court: and the judges of the court cannot confer on any reporter any such right."
2. Fred Waring, owner and conductor of an orchestra (plaintiff), produced phonograph records of its compositions. WDAS Broadcasting Station Inc. (defendant) broadcasted the records on the radio without a license from the plaintiff. In *Waring v. WDAS Broadcasting Station, Inc.* (1937), the plaintiff sought an injunction from the court to prevent the defendant from playing the records. The trial court granted the injunction, because recording of the plaintiff's music was a "product of novel and artistic creation as to invest him with a property right." The appellate courts affirmed the trial court.
3. Kevin E. George (defendant) was convicted of distributing unauthorized copies of recorded devices and distributing items bearing counterfeit marks, third-degree felonies in Pennsylvania, after two investigators for the Motion Picture Association of America (MPAA) spotted the defendant selling counterfeit videotapes from a vending table on a public sidewalk in Philadelphia. The investigators received training to identify fraudulent packaging, especially "blurry printing on their cases, low-quality cardboard boxes, bogus trademarked studio logos and titles of motion pictures that were currently playing in theaters." The investigators went to the police and reported the defendant, who was subsequently arrested and convicted of the above charges (*Commonwealth v. George* 2005).
4. MercExchange LLC (plaintiff) owned a business method patent for an "electronic market designed to facilitate the sale of goods between private individuals by establishing a central authority to promote trust among participants." Previously, the plaintiff licensed its patent to other companies but was unable to complete an agreement with eBay Inc. or Half.com, an eBay subsidiary (defendants). In its patent infringement action, the plaintiff alleged that the defendants used the patent without permission. A jury found that the plaintiff's

(*continued*)

(*continued*)

patent was valid and that the defendants had infringed that patent. The jury awarded monetary damages, but the trial court refused to grant the plaintiff's request for injunctive relief (*Ebay, Inc. et al. v. MercExchange, LLC* 2006).

5. Myriad Genetics (defendant), together with the University of Utah, held patents on two genes that the firm successfully sequenced using a proprietary technology and whose genetic mutations are associated with breast and ovarian cancer. The patent owners claimed that isolating DNA from the body and applying measures to it to make it analyzable in the laboratory made the DNA—or, more specifically, the two genes in question—patentable. Bringing suit against them, however, was the American Civil Liberties Union (ACLU) along with various patients and medical organizations. The ACLU argued that the genes in this case were not the product of genetic engineering but rather components of the human genome—naturally occurring substances—and, as such, were not patentable. It further argued that the existence of the patent barred researchers not affiliated with Myriad from exploring the genes and potentially making new discoveries. In the end, the U.S. district court hearing the case ruled in favor of the ACLU, finding that the patent should never have been granted because one was dealing here with a "law of nature," not a human invention (*ACLU v. Myriad Genetics* 2010).

available to a prosecuting agency include "mail fraud, interstate transportation of stolen property, voracious state common law charges, and violation of the federal Economic Espionage Act" (Emerson 2009, 558).

The statutory criminal offense for criminal infringement involves "either (1) willfully infringing a copyright to obtain a commercial advantage or financial gain…or (2) trafficking in goods or services that bear a counterfeit mark.…Under the second category, the statute imposes criminal penalties if the counterfeit mark is (1) identical with, or substantially indistinguishable from, a mark registered on the Principal Register of the U.S. Patent and Trademark Office, and (2) likely to confuse or deceive the public" (Garner 1999, 785).

Although a patent may be registered, companies can still challenge the patent, as Ranbaxy Laboratories Ltd. did to Pfizer's patent on Lipitor. One of Pfizer's two patents was invalidated during the litigation, cutting back Pfizer's protection from June 2011 to March 2010. One strategy to elucidate the status of broad patents is for a registrar to file a declaratory judgment with the court to legally define the status of the patent (Smith 2006b).

Controversial Aspects of Intellectual Property

Public opinion indicates that many people believe that the United States is too litigious and question whether an individual or company can own an idea. This leads to controversy regarding intellectual property laws. In the early part of the 20th century,

large corporations that subsisted on their employees' sweat and brains controlled patents (Friedman 2004).

In many cases, the courts favored defendants, until 1982, when a law abolished the Court of Customs and Patent Appeals and gave the new Court of Appeals for the

GOOGLE BOOKS

In October 2004, Google announced a partnership with five major research libraries (Harvard, Stanford, University of Michigan, Oxford, and the New York Public Library) to scan millions of books into a company database and make them accessible via an online search engine. Several other universities joined over the next few years. The Google Books Library Project (books.google.com/googlebooks/library.html) has generated controversy from the beginning. In collaboration with the participating libraries, Google scans books in the public domain (i.e., works whose copyrights have expired) along with copyrighted books. For the latter, Google displays bibliographic information (similar to an old card catalog in a library) and supplies only enough of the book's contents (a "snippet") to enable a user to confirm that this is the volume sought. Google's goal is to create an index of all books in the world that can be accessed electronically. The company also intends to scan out-of-print books, which benefits individuals searching for books that might otherwise be difficult or impossible to find.

Critics complain that Google has usurped the rights of authors and publishers to distribute and profit from their works and that the company supplants the traditional function of the public library as well. Google has responded that much of the controversy is the result of inadequate or inaccurate understandings of the issues involved. Regarding the claim that the company is offering every book in the world free to Internet users, Google notes that only full versions of books that are out of copyright are made available. Books still in copyright are displayed in "limited view," with links to where users can buy or borrow them.

Regarding the claim that Google is generating revenue from advertising on its book search service and denying income to copyright holders, Google argues that the company does not put ads on a book's display page unless the publisher wants them there and has given Google permission to do so. It stipulates that the majority of the revenue, in fact, is given back to the copyright holder. In other words, the company profits from ads only to the extent that its publishing partners do as well.

In 2005, several publishers and organizations took Google to court over these issues, claiming that Google had violated the fair use provision of U.S. copyright law. Google countered that everything it was doing was legal. In 2008, a settlement was reached whereby Google has agreed to compensate authors and publishers in exchange for the right to scan and display copyrighted books. The agreement also gives publishers the right to opt out of the program so that any of their books scanned in participating libraries would not be made available to Google users. In April 2010, a group of organizations representing visual artists (photographers, graphic artists, etc.) sued Google for copyright infringement. Whether this case, too, will be settled or will proceed to trial remains to be seen.

Federal Circuit the exclusive right to hear patent appeals. Today, plaintiff patent owners benefit from greater legal securities as the image of a patent shifted from "a tool of big business; now it was a legal shield to protect the entrepreneur, the risk taker, the start-up company" (Friedman 2004, 427–428). Additionally, patent lawsuits in federal court doubled between 1998 and 2001, and patent applications increased from 200,000 in 1994 to 380,000 in 2004. Currently, the Patent and Trademark Office is attempting to reform the system to quicken the review of 1.2 million backlogged patents (Schmid and Poston 2009).

Many fear a frivolous lawsuit that will cost a defendant time, money, stress, and years of frustration. Today, some corporations' sole purpose for existence consists of buying patents and litigating possible infringements (Slagle 2006). For instance, the Rock and Roll Hall of Fame sued a photographer for infringement because he sold a poster depicting the Rock and Roll Hall of Fame before a "colorful sunset" and labeled "Rock n' Roll Hall of Fame in Cleveland." The court dismissed the case, despite a trademark registration and wide public recognition of the photograph (Duboff 2002).

Conclusion

Although protection of intellectual property is vital to businesses and other organizations (such as universities) both large and small, registration of patents, copyrights, and trademarks places limitations on individual creativity. In ancient times, plagiarism was the sincerest form of flattery; now plagiarism and infringement are synonymous with criminal activity. Realistically, intellectual property protections are necessary to protect hardworking inventors against those who seek to subvert the system while chasing ill-gotten gains.

In a global economy, patents, copyrights, and trademarks have an increased importance for organizations of all types and sizes. Advances in intellectual property and piracy affect every segment of industry; therefore, it is imperative that intellectual property be registered in the places where an organization conducts business or that organizations are prepared to deal with the consequences.

See also **Foreign Direct Investment; Free Trade; Globalization; Corporate Crime (vol. 2); Biotechnology (vol. 4); Genetic Engineering (vol. 4)**

Further Reading

Bhatnagar, Parija, "China: Your Company Name May Not Be Yours." *CNN Money* (March 7, 2006). http://money.cnn.com/2006/03/07/news/international/trademark_squatting

"BlackBerry Maker Put on Patent Defensive Again." *CNN Money* (May 1, 2006). http://money.cnn.com/2006/05/01/technology/rim_visto/index.htm

Commonwealth v. George. 878 A.2d 881 (Pa.Super.). 2005.

Duboff, Leonard D., *The Law (in Plain English) for Photographers.* New York: Allsworth Press, 2002.

Ebay, Inc. et al. v. MercExchange, LLC. 126 S.Ct. 1837. 2006.

Emerson, Robert W., *Business Law,* 5th ed. Hauppauge, NY: Barron's, 2009.

Friedman, Lawrence M., *American Law in the 20th Century.* New Haven, CT: Yale University Press, 2004.

Garner, Bryan A., *Black's Law Dictionary,* 7th ed. St. Paul, MN: West Group, 1999.

Gohring, Nancy, "BlackBerry Numbers Rising." *IDG News Service* (June 30, 2006).

Henry Wheaton and Robert Donaldson v. Richard Peters and John Grigg. 33 U.S. 591, 8 L.Ed. 1055. 1834.

Illinois Tool Works, Inc., et al. v. Independent Ink, Inc. 126 S.Ct. 1281, 164 L.Ed.2d 26. 2006.

Locy, Toni, "High Court Rejects BlackBerry Patent Appeal." January 23, 2006. www.law.com

Parloff, Roger, "China Goes A-Courtin'." *Fortune* (March 7, 2006). http://money.cnn.com/magazines/fortune/fortune_archive/2006/03/20/8371752/index.htm

Parloff, Roger, "Not Exactly Counterfeit." *Fortune* (April 26, 2006). http://money.cnn.com/magazines/fortune/fortune_archive/2006/05/01/8375455/index.htm

Posner, Richard A., *Law and Literature,* 3d ed. Cambridge, MA: Harvard University Press, 2009.

Rysavy, Peter, "Air Pressure: Why IT Must Sort Out App Mobilization Challenges." *Information Week* (December 5, 2009). http://www.informationweek.com/news/mobility/business/showArticle.jhtml?articleID = 222000504

Schmid, John, and Ben Poston, "Patent Delays Harmful to U.S. Economy, Commerce Secretary Says." *JS Online* (August 21, 2009). http://www.jsonline.com/business/54199852.html

Schwabach, Aaron, *Intellectual Property: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Schwartz, John, and Andrew Pollack, "Judge Invalidates Human Gene Patent." *New York Times* (March 29, 2010).

Slagle, Matt, "Forgent's Business Model Takes Litigious Path." Associated Press (March 22, 2006).

Smith, Aaron, "Eli Lilly Hit with $65M Damages." *CNN Money* (May 5, 2006a). http://money.cnn.com/2006/05/05/news/companies/lilly/index.htm

Smith, Aaron, "Pfizer May Lose Billions in Lipitor Sales." *CNN Money* (August 7, 2006b). http://money.cnn.com/2006/08/02/news/companies/lipitor/index.htm

Spencer, Jane, and Jessica E. Vascellaro, "Imagining a Day without BlackBerrys." *Wall Street Journal* (January 25, 2006).

Stim, Richard, *Patent, Copyright and Trademark: An Intellectual Property Desk Reference,* 10th ed. Berkeley, CA: Nolo, 2009.

U.S. Patent and Trademark Office, "Global Anti-Counterfeiting and Piracy Initiative." 2006. http://www.uspto.gov

Waring v. WDAS Broadcasting Station, Inc. 194 A. 631 (Pa.). 1937.

Werner, Erica, "Small-time Inventors Take on Congress, High-Tech Industry over Proposed Patent Law Changes." Associated Press (October 25, 2005).

Wong, Grace, "Judge: No BlackBerry Shutdown Yet." *CNN Money* (February 24, 2006). http://money.cnn.com/2006/02/24/technology/blackberry/index.htm

Yu, Peter K., *Intellectual Property and Information Wealth: Issues and Practices in the Digital Age.* Westport, CT: Praeger, 2007.

INTEREST GROUPS AND LOBBYING

Ronald J. Hrebenar

Virtually any discussion of contemporary American social issues has to be framed within the vast array of interest groups and lobbyists who advocate for or resist the adoption of new policies. Of all the nations in the world, interest groups and lobbyists are more important to the outcomes of social issues in the United States and especially in the contemporary political era. If one just follows the course of U.S. politics by reading the political articles in the *New York Times* or the *Washington Post,* one would quickly notice that almost every social issue is understood by an examination of the powerful interest groups involved in the political battles. The essence of the process of U.S. politics is interest groups and lobbying.

The Foundations of Interest Group Politics in America: James Madison's Warnings

Every society has interests. Even the most ancient or primitive societies had key interests such as religion, agriculture, warriors, artisans, businesses or trades, and government. The 13 American colonies in the late 1780s had various interests—some promoted by groups with substantial political and economic power. James Madison, the father of the U.S. Constitution and author of some of the most important Federalist Papers (written in defense of the proposed Constitution), warned about the "danger of factions." Factions in the 1780s were an early form of interest group, and Madison designed the new federal government created by the Constitution as a large republic in order to reduce the power of these interests in the United States. Interest groups and lobbying cannot be eliminated in a free society without sacrificing liberty, so the best that can be done is to create a governmental structure with checks and balances and divisions of power so that powerful interests are less likely to dominate government and public policy.

The causes of faction are based "in the nature of man," and the "most common and durable source of factions has been the unequal distribution of property," wrote Madison. Property in a free society and economy will always be distributed in unequal amounts and types; thus, factions (or interests) will always be present.

Since, as Madison argued, there can be no cure for the causes of faction, one must focus on methods for reducing the negative impacts of factions (or interests) on the political system. This is also one of Madison's great contributions to the establishment of the U.S. political system: the complex or large republic. "A Republic…promises the cure for which we are seeking." Madison designed a republic, not a democracy. The republic is a representative government, not a government of direct citizen decision making. The representatives would use their wisdom to discover the "true interest of their country."

The dangers that Madison envisioned have become more apparent in recent decades as money has flooded into the political system and interest groups have moved

to provide millions of dollars to politicians for their campaigns (Kaiser 2010). The 2008 elections cost over $5 billion. Annually, lobbying in Washington and in state capitals costs over $6 billion, and that is just a portion of the grand total (Center for Responsive Politics 2010).

The Nature of the American Interest Group System

When the French aristocrat Alex de Tocqueville toured the new American nation in the 1830s, he was amazed by the tendency of Americans to organize interest groups to advocate social change. Compared to the politics of "Old Europe," Americans preferred to use political organizations to pursue their social objectives. Modern comparative political science supports that conclusion. Among the peoples of developed nations, Americans belong to more interests groups than any other people and expect these groups to promote their interests and preferences for them. Those in the other developed nations tend to leave such tasks to political parties (Hrebenar 1997).

The *Encyclopedia of Associations* lists over 20,000 interest groups operating in the United States in the early 21st century (Hunt 2004). The primary focus point for interest groups and lobbying is the U.S. national capital, Washington, DC. In the past several decades, many interest groups moved their national headquarters to K Street so that they can be close to the action on Capitol Hill. Over 20,000 lobbyists are registered in Washington, DC, and that figure represents only a part of the total of lobbyists representing all types of interests and issue areas.

As more and more state governments have expanded their budgets and activities in recent decades, the state-level interest group systems have become more professional and powerful. Interest group politics in Sacramento, California, Albany, New York, and Springfield, Illinois, have come to resemble that found in Washington, DC.

Who are these lobbyists? Many of them are lawyer-lobbyists. In the latter half of the last century, Washington law firms discovered a new revenue stream can be generated by adding a lobbying corps to the basic law firm. Lawyers have many of the skills that make for effective lobbyists. They are trained to understand the law and how it is made, interpreted, and implemented. They are also trained to be effective negotiators—and negotiation is a crucial activity for lobbyists trying to persuade others to support the political objectives of their clients. Many lobbyists are former bureaucrats who have served for a number of years in the governmental bureaucracy—often as staff members for the Congress and its specialized committees or as staff members for the various departments or agencies of government. Holding such jobs gives these lobbyists both subject expertise and lots of personal contacts with government decision makers. Former members of Congress are also valued as future lobbyists given their experience in various issue areas, political knowledge, and contacts in government. Finally, some lobbyists emerge from within the ranks of interest groups' employees and work their way up the ranks to jobs in political affairs, governmental relations, or as

executive directors—top lobbyists for many interest groups in Washington (Hrebenar and Thomas 2004).

What do lobbyists do? Primarily, lobbyists provide information to governmental decision makers. They act as representatives of the various interests to the representatives in government. The types of information they provide vary depending on the background of the lobbyist, the policy situation, the political environment, and the governmental decision maker they are lobbying. Some lobbyists are the nation's foremost experts in a particular and very specialized field, such as the extraction of oil from shale (a rock). Others can advise on the nature of public opinion regarding a particular bill, and still others can help plan strategy for getting a bill passed in Congress or a regulation approved in the federal bureaucracy. Since lobbyists represent so many different groups involved in a particular policy debate, a huge amount of useful information is available to the decision makers. Some lobbyists act as watchdogs for their interests—monitoring the key sites of government and reporting back to their interests if anything is happening in a department, agency, or house of Congress that may impact upon the interest. Others are pure advocates or contact lobbyists—often assigned to the White House, the Congress, or a particular department of the bureaucracy and having a variety of contacts in these sites they can use to try to effect a particular outcome. Some lobbyists are specialists in putting together coalitions for a particular bill and thus maximizing the power behind their cause by dividing up the work needed to achieve victory.

One of the major changes that has characterized lobbying in recent years has been the growing sophistication of the tools of the trade (Cigler and Loomis 2006). In decades past, lobbying was exclusively a face-to-face communications activity. Now, however, much of the communications is increasingly electronic, with e-mail messages replacing the old standard of sending a letter or a telegram to your congressperson. In the 1960s and 1970s, such communications were usually by fax or telephone; now, the Internet is used to alert the group's membership to ask them to help lobby the decision makers. This type of lobbying, the activation of members to get out the message, is called grassroots lobbying. There are several types of grassroots lobbying: "shotgun grassroots," where the activation of many members of an organization or coalition is the goal and thus, maybe millions of members may communicate their support; and "rifling grassroots," where the activation of some elite members of the organization produces a more personal and more effective type of communications. When grassroots lobbying is perceived to be ineffective because it seems too artificial or characterized by many very similar, if not identical, messages, it is called "Astroturf"—after the plastic grass of the Astrodome in Houston.

Another electronic form of contemporary lobbying is found in the various outlets of mass media. While billboards and lawn and telephone signs used to be an effective form of issue communication in the 1950s and 1960s, now television, especially cable

THE DEBATE OVER HEALTH CARE REFORM UNDER PRESIDENT BARACK OBAMA

There have been a series of great lobbying battles in the first decade of the 21st century, but surely one of the greatest was over the Obama administration's efforts to create a more substantial role for the federal government in managing the nation's huge health care insurance program—a sector that accounts for one-sixth of the nation's gross domestic product each year and continues to grow. While the nation's financial system struggled to recover from its near collapse in late 2008 and early 2009, health insurance companies, hospitals, doctors, pharmaceutical manufacturers, corporations, labor unions, consumer associations, and lawmakers organized for a fight over health care. The administration's success or failure in passing a reform bill was regarded as a defining moment for the Obama presidency, just as it had been in 1993–1994 for the Clinton administration. After months of confusion involving the Democratic-controlled Congress putting forth a variety of different proposals, the Obama administration stepped in with a compromise that managed to get just enough votes in the House and Senate to pass. The measure was signed into law by the president in March 2010.

Opponents such as the American Medical Association, the lead association of the nation's medical doctors, continued to oppose medical insurance reforms—as it had since the 1930s, when President Franklin Roosevelt proposed a national health insurance program to be added to his social security initiative, and then again in the 1940s, when President Harry Truman proposed a similar idea. The health insurance companies, too, in this latest round of debate, hired hundreds of lobbyists to descend upon Congress and advocate against the "socialization of American medical care." On the opposite side, a national health care insurance program, including a "single payer" provision that would have bypassed the private insurance companies that lie at the heart of the U.S. system, had long been on organized labor's political agenda. And, in a major switch from the time of the Clinton debacle of the 1990s, the pharmaceutical manufacturers this time were on the side of reform, because the Obama administration had promised them protections once they agreed to reduce the prices on some drugs covered in the new proposals. Big Pharma (i.e., the pharmaceuticals industry) ran some $100-million worth of TV ads in support of the administration's efforts.

When all of the issue advertising and spending on lobbying was over, a new law on health insurance in the United States was passed—and yet no one was completely happy. Tens of millions of Americans gained better access to health care, but the system of for-profit, private health insurance that makes U.S. health care different from care in every other developed nation, was still intact. Insurance companies, however, were now unable to deny people coverage for preexisting health problems, and they could not so easily terminate coverage for people who developed costly diseases or health conditions. Like many interest group battles before it, in this case, too many compromises on both sides produced a mixed outcome for all.

television, offers interest groups the ability to target very specific groups of people. An interest group can run television ads in just the congressional districts represented by all the wavering members of a specific congressional committee considering a bill of great import to the group. This is what the Health Insurance Association of America did in 1993 with its now famous "Harry and Louise" ads, as the Clinton administration tried to pass a health care reform bill. The ads cast doubt on many parts of the proposed law, which finally died in Congress without an up-or-down vote. Recent decisions by the Supreme Court, including *Citizens United v. Federal Election Commission* (2010), have made such advocacy TV ads a much more readily available tool for interest groups to use in electoral campaigns in support of politicians who favor their cause or against those who oppose it.

Many interests, especially those seeking to challenge the existing social, political, or economic orders in the United States, do not have the resources to engage in multi-million-dollar TV advertising campaigns. These interests have some types of resources that can allow them to participate in the political process—even if they are at a serious disadvantage in terms of money and other resources that their more established opponents have in abundance. These interests are usually called social movements because they lack the organization, formal membership, and resources of more traditional interest groups. This is not to say that they are not important parts of the political system. In some cases, they represent millions of people who support to one degree or another a particular policy outcome such as equality of treatment for gays and lesbians or express the anger and frustration voiced by the Tea Party supporters in 2010's elections. These interests usually try to gain greater public support for their cause by creating free media events that allow them to gain free media coverage for their cause. Thus, the tools of choice are marches, demonstrations, boycotts, and various actions that draw people—and especially the media—to cover them and their cause. Many of the great interest groups of the contemporary United States began as disorganized social movements and after some success evolved into the more conventional form of interest groups employing the conventional strategies and tactics of such groups. Some of the groups that emerged out of these broader movements include the National Organization of Women, the National Association for the Advancement of Colored People, and the Friends of the Earth.

Money: The Mother's Milk of Interest Group Politics and Lobbying

Money is called the "mother's milk of politics" because it can be converted into so many other resources that are valuable to lobbying (Unruh 2008). It can be used to build a powerful organizational structure with a staff of experts; it can be used to hire powerful, knowledgeable leadership; it can be used to access the mass media to communicate a group's position in important issue debates; it can be used to organize a grassroots campaign; it can be used to help finance the political campaigns of politicians favorable to its cause; it can even be used to finance a public relations campaign

to change the public's image of the group and thus enhance its persuasiveness in the issue debates.

Powerful interests such as the American Association of Retired Persons (AARP, the huge, 35-million-member lobby of senior citizens) have hundreds of millions of dollars in revenues each year to support lobbying campaigns. Wall Street and the U.S. banking industry poured tens of millions of dollars into both Republican and Democratic party campaigns in recent years trying to gain the access they needed to protect their interests if the financial system collapsed (as it did in 2008) and calls for greater regulation of the financial industry threatened the industry. Supporters and opponents of the Obama administration's health care reform bill of 2010 also spent hundreds of millions of dollars in lobbying the issue as well as tens of millions of dollars in donations to campaigns of members of Congress in 2006 and 2008.

What does money buy for an interest? First and foremost, access. Interests that make big donations to a political campaign or a political party can expect to have access to key political leaders and an opportunity to make their arguments at key times during the debates. Interests that do not "play the money game" will have a far more difficult time gaining access. They may eventually get some access, but how seriously will they be listened to? Do large campaign contributions buy favorable decisions for the rich interest groups? There is considerable debate on this. Some argue that it does and can point to hundreds of examples where the big contributors often get the laws and regulations they want—give or take a few details. Others argue that the politicians they support financially in election campaigns already support these outcomes regardless of the financial contributions. What is clear, in any case, is that money does buy access, and the outcomes in policy frequently follow the preferences of the groups that give the money to the politicians for their campaigns.

Conclusion

In the final analysis, the outcomes of debates over controversial social issues in U.S. politics are closely linked to major interest groups and the skills and persuasiveness of their lobbyists. To understand which issues rise to be discussed and then dealt with by the legislatures and executives across the nation, one must understand the roles played by interest groups, mass movements, and lobbyists; and one must also understand how these powerful organizations impact these outcomes and, ultimately, the future of U.S. society. As political scientist Jeffrey Berry has put it, ours is an "interest group society" (Berry and Wilcox 2008).

See also **Election Campaign Finance**

Further Reading

Berry, Jeffrey, and Clyde Wilcox, *Interest Group Society.* New York: Longman, 2008.

Burbank, Matthew J., Ronald J. Hrebenar, and Robert C. Benedict, *Parties, Interest Groups, and Political Campaigns.* Boulder, CO: Paradigm, 2008.

Center for Responsive Politics, Lobbying Database. 2007. http://opensecrets.org/lobbyists/index.asp

Cigler, Allan, and Burdett A. Loomis, *Interest Group Politics.* Washington, DC: Congressional Quarterly Press, 2006.

Costain, Anne E., and Andrew S. McFarland, *Social Movements and American Political Institutions.* Lanham, MD: Rowman & Littlefield, 1998.

Hrebenar, Ronald, *Interest Group Politics in America.* Armonk, NY: M. E. Sharpe, 1997.

Hrebenar, Ronald, and Bryson B. Morgan, *Lobbying in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2009.

Hrebenar, Ronald J., and Clive S. Thomas, "Interest Groups in the States." In *Politics in the American States,* ed. Virginia Gray and Russell L. Hanson. Washington, DC: CQ Press, 2004.

Hunt, Kimberly N., *Encyclopedia of Associations.* Farmington Hills, MI: Gale-Thomson, 2004.

Kaiser, Robert G., *So Damn Much Money: The Triumph of Lobbying and the Corrosion of American Government.* New York: Vintage Books, 2010.

Meyer, David S., *The Politics of Protest: Social Movements in America.* New York: Oxford University Press, 2007.

Unruh, Jessie, "Quotes." 2008. http://www.jesseunruh.com

L

LABOR, ORGANIZED

Robert M. Fearn

Many questions arise when one considers organized labor and collective bargaining. Among them are the following:

- Why do people join unions?
- What can unions do for their members?
- What are the economic and social effects of organized labor?
- How have those effects changed over time?
- What is the future of U.S. organized labor in the new world economy?

One approach to answering these (and similar) questions is, first, to define what unions are and what they are not, and, second, to trace the history of unions in the United States through good times and bad up to the present.

Types of Unions

Although unions are an economic entity, they are or can be much more than that. Indeed, organized labor (or unionism) represents a broad socioeconomic movement that has taken many forms in many different countries. Among these are the following:

- *Uplift unions.* Associations of workers that seek to raise the incomes and/or alter the living conditions of their members (and others) by raising the skills and cultural levels of members and by providing aid to members who have experienced economic reverses. Leadership of these unions is often external

(priests, rabbis, ministers, philanthropic volunteers), as distinguished from rank and file.

- *Political unions.* Associations of workers that seek to achieve similar objectives primarily through political action, often in alliance with a political party or parties. Unions in democratic socialist nations often fall into this category.
- *Revolutionary unions.* Associations that seek the same objectives by overthrowing the system—that is, by forcibly altering the property right and/or economic-political system.
- *Industry unions.* Associations that seek to raise the incomes of their members and alter the conditions of employment primarily through collective bargaining. Industry unionists generally accept and seek to work within the existing political and economic system.

Although all four types of unions have existed in the United States, industry unions have been the predominant form.

The Rise and Decline of Unions in the United States

Union membership was relatively low prior to the First World War, but it grew sharply during that conflict, peaking at 5 to 6 million—including Canadian members of U.S. international unions. Throughout the 1920s and the early 1930s, union membership declined to about 3 million workers, representing 11–12 percent of nonagricultural employment in the early 1930s. The pattern of unionism in the United States has changed since 1930, both in total membership and as a percentage of nonagricultural employment. Although the available data involve differences in definitions and contain some gaps over the years, the general trends are clear. Union membership grew very rapidly during the late 1930s and the World War II period, both in membership and as a percentage of employment. In 1945, unions represented over 14 million workers—about 35 percent of nonagricultural employment. Hence, one-third of U.S. wage and salary workers were unionized. Unions were heavily concentrated in mining, manufacturing, and construction and were located particularly in the northern and western industrial states. Beginning in the late 1940s and throughout the 1950s, union membership grew more slowly, and membership began a slow decline as a proportion of employment (or labor force). Total membership peaked in 1979 at 21 million workers (about 24 percent of nonagricultural employment). Thereafter, membership gradually fell.

Worker Attitudes

One powerful influence in the growth of unions was the attitude of many workers toward collective action, both in the workplace and in other aspects of their lives. Many immigrant groups saw collective action as necessary in the struggle for dignity and higher incomes. German, Scandinavian, and Midland English immigrants brought

THINGS MAY NOT BE WHAT THEY SEEM

Seeking to limit union monopoly power via the Taft-Hartley Act of 1947, Congress outlawed the closed shop. Closed shops involve practices or contractual arrangements whereby employees are obtained exclusively through a union hiring hall or a union business agent. Hence, only persons who are union members (or approved by the union) are eligible for employment.

Despite the legislative ban, de facto closed shops still exist. Is that fact evidence that employers are intimidated by union (or union mob) muscle, as some people contend? Does it mean also that the legal authorities are refusing to enforce the law? While the answer to both questions could be yes, there is an alternative explanation.

First, unions in such instances generally guarantee some acceptable level of skill or experience among those referred for employment. And de facto closed shops seem to exist primarily (if not exclusively) in activities involving intermittent employment. Construction, entertainment, and longshoring are good examples. While there may be alternative ways for employers to staff those positions (say, by conducting a new search each time workers are needed or by hiring temps through various agencies), the union hiring hall may be the least expensive way of obtaining qualified workers whenever and wherever needed. Hence, the closed shop may still exist because it serves the interests of the unionists *and* the employers.

with them a strong pride of craftsmanship and allegiance to the working class. Although, to some degree, these attitudes were foreign imports, they also resulted from and were strengthened by social and economic pressures created by the rapid industrialization of the United States in the late 1800s, the growing social divide of the times, and serious concern about the distribution of income among the population. Clearly, pride of craftsmanship was a strong component in the earliest unions, which were usually organized along craft lines: printers, carpenters and joiners, plumbers, machinists, railroad engineers, and so on. Other immigrants, such as the Irish and the Jews, were alienated from their new environment and saw a need for group solidarity and protection against the bosses. No doubt, those attitudes reflected previous experiences with foreign overlords as well as ethnic and religious discrimination. Somewhat later, African Americans and Mexican Americans mirrored those attitudes and joined unions in large numbers.

The Desire for More

"More" was his answer when Samuel Gompers, president of the (craft-oriented) American Federation of Labor (AFL), was asked what organized labor wanted. Clearly, with national income rising, with vast fortunes being earned by the bosses, and with periodic depressions and recessions, labor wanted both a larger share of the economic pie and

greater security. Moreover, unions were prepared to use collective bargaining, strikes, and boycotts to achieve what they believed to be a more equitable distribution of income. However, it was not until the 1930s that any widespread unionization occurred beyond the traditional craft unions. At that time, the Congress of Industrial Organizations (CIO) spearheaded union organization by industry rather than by crafts and organized large numbers of semiskilled and low-skilled workers into unions. The success of unions in achieving "more" is discussed subsequently.

Labor Market Monopsony and Feelings of Impotence

Closely related to workers' attitudes and desires (and some political initiatives) were (1) feelings of economic impotence among workers and (2) the existence of labor market monopsony (where one or a few firms provide most of the employment in the area). In such so-called company towns, there was often considerable tension between workers and management. Coal and other mining communities are good examples. Moreover, under such conditions, workers might risk their jobs by complaining. Obviously, workers could use what Freeman (1976) calls "exit voice" to relieve their workplace grievances, but "union voice" (including grievance procedures established in the collective bargaining contract) was an alternative approach that provided workplace dignity without the need to search for a new job.

As automobile transport became cheaper, roads improved, labor markets became more competitive, information concerning alternative employment opportunities increased, and immigrant and other workers became less alienated and part of the burgeoning middle class, the demand for unionism to address labor market problems diminished, but it did not disappear. Workers in large firms continued to support union efforts to standardize wages and process workers' grievances. In response, many firms established open-door policies, ombudsmen, and employee relations offices to encourage communication between the firm and the workers, to provide a better human relations climate, and to maintain a regular check on the fairness (and limit the arbitrariness) of first-line and other supervisors.

The Legal Framework

Despite company towns, strong feelings of alienation and inequity, and the desire for "more," unionization and union activities for many years were sharply limited by law. From the early 1800s, unions and union activities were often treated by the courts under the common law as criminal conspiracies—that is, actions or associations in restraint of trade. After *Commonwealth v. Hunt* (1842), unions per se were no longer illegal, but most of their economic actions were. Indeed, under the Sherman Anti-Trust Act of 1890, treble damages were a possibility on conviction. It is not surprising, therefore, that unionism did not grow rapidly until the legal strictures were temporarily relaxed during World War I and later in the 1930s, when the Wagner Act (the National Labor

Relations Act of 1935) somewhat belatedly encouraged unionization as an offset to the power of businesses in labor markets.

The legal climate changed again after World War II with the passage of the Labor-Management Relations (or Taft-Hartley) Act of 1947 and subsequent rulings by the National Labor Relations Board. The 1950s saw the passage of the Labor-Management Racketeering (or Hobbs) Act of 1951 and major congressional hearings. The latter resulted in the prosecution and disgrace of several top labor leaders. While the growth and decline of unionism were affected by changes in the legislative and regulatory climate, those changes cannot account fully for what occurred during the latter half of the 20th century.

Union Successes and Changing Labor Markets

As an economic entity, unions can be more successful in raising wage levels when the wage increases do not lead to major reductions in the employment of their members. When it is difficult or expensive to substitute machinery or other inputs for labor (as, say, in the case of airline pilots), the ability of unions to raise wages above what might otherwise exist is strengthened. The ability to substitute other inputs for labor, however, varies substantially from industry to industry, and it changes over time with new products and new technology. So does the profitability of the firm(s) and the ability to substitute nonunion or foreign labor for U.S. union labor. Hence, the ability of unions to raise wages declines when changes in technology, skill levels, and import/export restrictions make substitutions easier or when firms become less profitable.

It is not surprising, therefore, that Lewis (1963) (and his colleagues and students at the University of Chicago and elsewhere) found very sizeable differences in union wage effects across industries and across time periods. Their studies show effects ranging from 100 percent in 1921–1922 for bituminous coal mining to a zero effect in 1945. Only a few studies, however, showed changes in relative wages greater than 25 percent. Indeed, the average wage effect shown by these studies was approximately 10–15 percent. Many seemingly strong unions had little or no effect on wage levels but were apparently able to provide workers with grievance and other workplace protections. As suggested, these protections may be highly valued by workers. Indeed, according to Lewis, less than 6 percent of the labor force showed union wage effects of 20 percent or more. As suggested, these effects varied among and within industries and over time.

Most of these estimates were made during or prior to the 1960s. During the entire post–World War II period, however, there were massive changes in industrial composition and the U.S. labor market. In particular, manufacturing was affected by (1) a substantial rise in productivity (similar to that experienced earlier in U.S. agriculture), (2) the movement of population and some industry to the less unionized southern states, and (3) the increased ability of Japanese and European firms to export their products to the United States.

Indeed, as a result of these and other factors, manufacturing employment in the United States fell by about 5 million workers during the last three decades, reducing the workforce in manufacturing from about 20 percent of total employment in 1979 to about 11 percent in 2005. In addition to the factors noted previously, the U.S. economy and unions in the United States have been affected by globalization and the emergence of world market conditions that increased further the availability of foreign products. Globalization, of course, affected more than the unionized sector. Indeed, many of the low-skill intensive and often nonunion industries (particularly in the South) were heavily impacted by free trade and the formation of new truly global corporations in both manufacturing and commerce. Included among these were textile, garment, and sewing firms. Mergers created numerous new international corporations with plants around the world. In addition, some U.S. firms simply closed their plants in the United States and even overseas, choosing to become wholesalers who contract with foreign-owned firms to meet the product specifications established by the U.S. firm(s). In addition, the massive transformation of the economy in the late 1980s and 1990s known as the dot.com boom sharply altered job skills, communications, business procedures, and industrial composition.

All of these factors sharply affected the ability of unions to raise or even maintain wage levels in the industries and areas where unions had previously exhibited clout, lowering the extent of unionization and altering the composition of the labor movement. As noted, the largest U.S. unions are now concentrated in public-sector service jobs and in transportation, utilities, and construction—industries where the possibilities for foreign labor substitution are smaller than in, say, manufacturing.

According to Deitz and Orr (2006), job losses in manufacturing "are almost certain to continue"—an assessment that surely applies even more strongly to the 2008–2009 recession and its aftermath. Nonetheless, Deitz and Orr found that, in the early 2000s, high-skilled employment in manufacturing rose substantially in almost all manufacturing industries and in all parts of the country. Such a finding is consistent with the comparative advantage of the United States over many other countries in highly skilled activities. It also reflects the fact that it is often more difficult to substitute other inputs for skilled labor. In a previous age, that was one of the strengths of the craft-oriented unions.

Among the industries that were hard hit by the recent recession is the U.S. auto industry. U.S. carmakers have long struggled with high labor costs—salaries, benefits, health care, and pensions—compared to their nonunionized counterparts, the Japanese automakers. Before the recession, Detroit automakers made agreements with unions to reduce wages while making pension and health care commitments to their workers. Nevertheless, that left carmakers vulnerable to drops in the financial markets, as happened at the end of 2008. The terms of the earlier agreements had to be revisited and additional changes instituted. Most of the auto companies, for example, offered their older

workers early retirement packages and made agreements with the United Auto Workers to transfer pension obligations to an independent trust. Massive loans from the government also were solicited. Yet, despite even that, U.S. automakers continued to struggle in the market vis-à-vis the Japanese carmakers. As of mid-2010, there were signs both positive and negative regarding Detroit's overall prospects for success.

Union Leadership

No listing of the factors influencing U.S. unionism would be complete without some mention of the many charismatic and often controversial leaders of the movement. Samuel Gompers of the American Federation of Labor was cited previously. John L. Lewis, initially with the Coal Miner's Union, championed the rise of industrial unionism and led in the formation of the CIO. The Reuther brothers, Walter and Victor, developed the sit-down strike into a formidable weapon and directed the once powerful United Auto Workers Union. George Meany, the longtime president of the combined AFL-CIO, also deserves mention. So does Jimmy Hoffa of the Teamsters Union, who was regularly accused of racketeering and connections to the Mob. That circumstance, among other concerns, led to the passage of the Labor-Management Racketeering Act of 1951. In 2005, Andrew Stern, then president of the Service Employees International Union, led his large union out of the unified AFL-CIO in a dispute over how to reorganize the labor movement to meet the challenges of globalization and changing technology. Each of these individuals contributed to the nature and success of unions in the United States, as did a raft of other leaders.

The Future of Organized Labor in the United States

The ups and downs of unionism combined with the uncertainties of the future make any predictions extremely difficult. All one can reasonably do is outline the major factors that could affect unions and union membership now that membership as a proportion of employment is only about 12 percent and slipping.

Several factors weigh heavily in what may occur in the near future. These factors include (1) globalization, (2) the change in the composition of the labor movement from the manufacturing and mining to the service industries, (3) the growing skill levels of U.S. workers within manufacturing and beyond, and (4) the growth of social discord in both the United States and the newly industrializing nations. Moreover, as in the past, legal-legislative changes could have major impacts.

Clearly, the old feelings of alienation, impotency in the workplace, and even class struggle have risen recently with industrial relocation and new technology. It seems likely that these concerns will continue to be addressed among skilled and professional workers largely by exit voice, rather than by union voice. That certainly was the pattern in the 1990s and the early 2000s. Indeed, exit voice among such workers may entail migration across national boundaries, going where the jobs are. Among lower-skilled and

semiskilled workers, however, the emerging world labor market may limit the opportunities for exit voice both within and outside the United States, and that may encourage unionization. Many displaced workers have already found their way into the service industries, now the most heavily unionized sector of the economy. Some of these workers, of course, have left the labor force, have relocated into nonunion jobs, or have been retrained for higher-skilled occupations. Union leaders like Andrew Stern argue that recent events require both the reorganization of existing unions and an emphasis on industrywide (rather than firm-level) bargaining. Whether such changes could or would reinvigorate unions or increase membership, however, is problematical. It is also unknown whether the new immigrants to the United States, legal or illegal, will be as supportive of unions as were the immigrants of the middle to late 1800s and early 1900s.

Alternative approaches to strengthen unions may be tried, particularly the formation of truly international unions to match the new international corporations or the insistence on international labor standards via the courts, the United Nations, and various treaties. These approaches face many obstacles. The first is somewhat daunting since political (rather than business) unionism has been the norm in many other developed nations. Moreover, there are innumerable differences in labor laws and regulatory climates among the nations. Also, there are important questions of national sovereignty. Finally, some nations are rejecting globalization and even capitalism, nationalizing industries and hence limiting the opportunities for collective bargaining on either a firmwide or industrywide basis. Nevertheless, there is some agitation overseas (for example, in China) for independent industry unionism now that there are private employers throughout that nation. Of course, U.S. unions would welcome and support such a development in China and elsewhere.

Finally, to the degree that perceived income differences grow among Americans, there will be stronger demands for government regulation of the labor market via living wage and minimum wage laws, governmentally regulated pension arrangements, and the like. As in the past, organized labor in the United States is likely to support both collective bargaining and governmental initiatives to address the overall distribution of income.

See also **Free Trade; Globalization; Immigrant Workers; Minimum Wage; Outsourcing and Offshoring; Pensions; Unemployment**

Further Reading

Bennett, James T., and Bruce E. Kaufmann, eds., *What Do Unions Do? A Twenty-Year Perspective.* New Brunswick, NJ: Transaction Publishers, 2007.

Briggs, Vernon, *Immigration and American Unionism.* Ithaca, NY: Cornell University Press, 2001.

Brody, David, *Labor Embattled: History, Power, Rights.* Urbana: University of Illinois Press, 2005.

Bureau of Labor Statistics, U.S. Department of Labor. "Union Members—2009." January 22, 2010. http://www.bls.gov/news.release/pdf/union2.pdf

Deitz, Richard, and James Orr, "A Leaner, More Skilled U.S. Manufacturing Work-force." *Current Issues in Economics and Finance* 12 (2006): 1–7.

Dine, Philip M., *State of the Unions: How Labor Can Strengthen the Middle Class, Improve Our Economy, and Regain Political Influence.* New York: McGraw-Hill, 2008.

Early, Steve, *Embedded with Organized Labor: Journalistic Reflections on the Class War at Home.* New York: Monthly Review Press, 2009.

Freeman, Richard, "Individual Mobility and Union Voice in the Labor Market." *American Economic Review* 66 (1976): 361–368.

Lewis, H. Gregg, *Unionism and Relative Wages in the United States.* Chicago: University of Chicago Press, 1963.

Martinez, Rick, "Can Unions Fly High Once More?" *News and Observer* (August 25, 2005): 13A.

Troy, Leo, *Beyond Unions and Collective Bargaining.* Armonk, NY: M. E. Sharpe, 2000.

Weir, Robert E., and James P. Hanlan, eds., *Historical Encyclopedia of American Labor.* Westport, CT: Greenwood Press, 2004.

Yates, Michael D., *Why Unions Matter,* 2d ed. New York: Monthly Review Press, 2009.

M

MARKETING OF ALCOHOL AND TOBACCO

Paul W. Schneider

Alcohol and tobacco have served a variety of functions and played a significant role in the marketplace throughout history. Alcohol has long been used as part of religious customs, as medicine, and as a form of sustenance. Tobacco was used as collateral for loans from France during the American Revolutionary War, as a cure-all, and as a diet aid. However, for the last 200 years or so, alcohol and tobacco have been consumed in a fashion consistent with present-day usage, primarily for pleasure. Regardless of the reason for their use, both substances have been popular throughout most of human history. And both substances and their marketing have become controversial.

Historical Developments

As early as the Civil War (1861–1865), organizations were formed to protest alcohol consumption. Although alcohol remained popular among portions of the population, independent movements calling for voluntary abstinence and eventually the prohibition of alcohol by law emerged.

Eventually, as living conditions improved and humans began to live longer, the hazards of alcohol surfaced. The public took notice and actions were taken. Prohibition, a result of the temperance movement and which made the sale and consumption of alcohol illegal, began on January 16, 1919. It was abolished on May 10, 1924.

To date, the marketing of alcohol remains largely self-regulated, and legal limitations on marketing and sales have been more lenient than those on tobacco. Nonetheless, the

knowledge that alcohol can contribute to health problems and beliefs that it is responsible for corrupting the family unit have led to the establishment of dry counties in various states. In existence to this day, a dry county is one that prohibits the sale of alcohol.

It was not until the surgeon general released a report called "Smoking and Health" in 1964 that the hazards of smoking were officially and publicly recognized. Negative press surrounding tobacco surfaced due to the health concerns associated with the product. This caused many of the major tobacco producers of the 1960s to consider changing the names of their companies and diversifying their range of products. In marketing, names are important because they convey information about the company to consumers. The information communicated to consumers influences how the company is perceived and how it is positioned in regard to purchasing habits. Tobacco companies acknowledged the importance of brand names, and a trend started that saw tobacco companies actively change their names and products to avoid negative perceptions.

In the United States in the 1960s, a company that produced only tobacco products or had the word *tobacco* in its name was looked upon unfavorably. As a result, American Tobacco Company became American Brands, and Philip Morris bought part of Miller Brewing Company. R. J. Reynolds Tobacco Company changed its name to R. J. Reynolds Industries and ventured into the aluminum industry. (Reynolds Wrap aluminum foil was long part of the R. J. Reynolds line of products.) The government has regulated the sales and advertising of cigarettes and, since 1966, has forced the industry to place health risk warnings on all packaging. Sales of both alcohol and tobacco to minors are limited; these age limitations vary according to state laws.

The Costs of Marketing Alcohol and Tobacco

In the United States, more than $2 billion is spent each year to promote alcoholic beverages (Center on Alcohol Marketing and Youth n.d.). The alcohol industry claims that

ADVANTAGES OF POINT-OF-PURCHASE ADVERTISING

According to the Point-of-Purchase Advertising Institute, sales of point-of-purchase materials bring in nearly $13 billion annually; this makes the sales of point-of-purchase advertising materials third highest of all media in dollar expenditures. Point-of-purchase advertising consists of:

1. Displays, which can range from countertop to refrigerated dispensers
2. Signs, which serve notice of special pricing or other important information about a product
3. Shelf media, which attach to the front of retail shelving and tell the customer about special offers without taking up valuable retail space
4. New media, which can include video displays, coupon dispensers, interactive displays, and audio devices

advertising only affects brand choice and that the marketing of products is done to establish brand differentiation, or anything that positively distinguishes the identity of a company and its products and/or services to consumers from other companies' products. Popular examples of brand differentiation in the alcohol industry include promotions for Samuel Adams reminding consumers that the company uses more hops for flavor in its beer, and Coors Brewing Company's description of its beer as shipped cold and made with Rocky Mountain spring water.

While alcohol producers claim that advertising only promotes distinguishing characteristics to consumers, alcohol researchers, the U.S. surgeon general, and the National Institute on Alcohol Abuse and Alcoholism disagree. They say that heavy episodic drinking, or binge drinking, is at least partially fueled by commercial messages (Center on Alcohol Marketing and Youth n.d.). Binge drinking is regarded as the consumption of five or more consecutive drinks by a male or four or more consecutive drinks by a female. National studies have concluded that 40 percent of college students are binge drinkers.

Alcohol consumption among college students has been shown to have an elastic demand. This means that as the price of alcohol decreases, consumption increases. Because traditional college students are around the legal drinking age, marketing helps fuel the desire for experimentation. Of course, many influences other than marketing (such as parenting and peer pressure) factor into one's decision to consume alcohol. But given alcohol's accessibility, it is believed that marketing initiatives and promotional measures that constantly bombard people with advertising and discounted prices increase consumption by keeping alcohol financially accessible and on consumers' minds (Kuo et al. 2003). Unfortunately, increased drinking by college students leads to a greater number of accidents. The National Institute on Alcohol Abuse and Alcoholism reports that drinking by college students results in more than 1,800 alcohol-related deaths each year (National Institute on Alcohol Abuse and Alcoholism 2009).

It is projected that more than $243 million was spent in 1999 alone to sponsor public service activities that combat alcohol abuse and related problems. Nearly $11 million is spent annually to educate the public about the harm of tobacco (Corporate Accountability International n.d.). (The industry has a daily marketing budget of about the same amount; Educational Forum on Adolescent Health 2003.) While both the alcohol and tobacco industries have marketing programs that are intended to educate the public about potential risks, the difference is that tobacco education has federal funding, whereas alcohol does not. Alcohol education programs are funded by institutions such as Century Council, the Beer Institute, the National Beer Wholesalers Association, Brewers' Association of America, and the alcohol companies.

Aggressive Marketing of Products

Some organizations and activists believe that the products' aggressive marketing practices have an adverse impact on the long-term behavior of the population. Thus, certain

marketing approaches may have a variety of opponents. It is logical to ask why companies in these industries would continue practices that lead to such unfavorable attacks on their businesses.

The answer lies in the nearly 5,000 customers that the tobacco industry loses in the United States on a daily basis (approximately 3,500 quit and 1,200 die) and the estimated 100,000 Americans dying annually from alcohol-related causes (Corporate Accountability International n.d.; Mayo Clinic 2007). In fact, it is projected by the U.S. Office on Smoking and Health that smoking results in more than 5.5 million years of potential life lost nationally each year (Centers for Disease Control 2008). Simply put, in order to replace the revenue from those customers that the industries are losing, new customers must be acquired. This is accomplished through multimillion-dollar marketing campaigns. Campaigns of this magnitude are widespread, encompassing many media outlets. This means that marketing messages about alcohol and tobacco will reach the eyes and ears of youths, regardless of the demographic groups that the messages are geared toward.

Consequently, rules surrounding the marketing of tobacco and alcohol are evolving, and marketing campaigns in nearly all parts of the world are aimed at preventing children from developing these habits. The theory is that preventative measures will translate into an absence of alcohol- and tobacco-related problems and health risks in the future.

Marketing Tactics

When marketing abroad, the alcohol and tobacco industries often attach American themes to their brands. This practice is particularly common in tobacco advertisements; for example, in one ad circulated in the Czech Republic, a pack of Philip Morris cigarettes is seen merging with the New York City skyline, and a Polish Winchester Cigarette advertisement features the Statue of Liberty holding an oversized pack of cigarettes. Others showcase prominent U.S. cities; red, white, and blue color schemes; and scenes that depict an American lifestyle (Essential Action n.d.).

Goldberg and Baumgartner found that the use of American imagery in smoking advertisements works because smoking is seen as an attractive part of the American lifestyle in many countries. Those attracted to the United States and who regard it as a place they would like to live are more likely to smoke. Having decided to smoke because they see it as an important part of the American lifestyle, they are more likely to smoke a U.S. brand of cigarette (Goldberg and Baumgartner n.d.).

R. J. Reynolds found in a 1983 study that marketing using American themes is not successful in the United States. Statements made by study respondents included: "It is too nationalistic," "America is not that great," and "It is not appropriate to sell America when selling cigarettes, or at least not in such a directly nationalistic way" (Essential Action 2006).

Nonetheless, the promotion of the perceived customs and norms of a product's place of origin has surfaced in the domestic advertising of alcoholic beverages. Smirnoff Ice, an alcoholic beverage, employs actors with Russian accents and wearing Russian garb for a television advertising campaign. Beer companies such as Heineken and Becks also proudly promote the heritage of the beer's national origin.

Another method that has been effective among U.S. consumers is what author Edward Abbey calls "industrial recreation" (Marin Institute n.d.). Often referred to as "wreckreation" or "ecotainment," the term refers to the utilization of landscape to promote a product. It is argued that such use of terrain in advertising may change the way that the community uses and experiences public space.

Some new marketing campaigns are prompting questions about whether they are bending the rules of marketing. The prevailing rules of marketing rely primarily on codes that are geared toward traditional media. New technologies that utilize both traditional and nontraditional marketing techniques are complicating efforts to restrict and monitor marketing aimed at susceptible groups. These new technologies allow questionable marketing practices, such as cloaking, to go undetected by policy.

Cloaking, or stealth, is an ethically questionable technique employed online by Web sites to index Web pages within search engines in a fashion that is different from the way the page is indexed to other sources. Basically, the technique of cloaking can be used to trick a search engine. Successful cloaking results in higher rankings of inappropriate matches—for example, a search for a word unrelated to alcohol might bring up the sites of alcohol companies, which may lead the user to browse those sites. The logic here is that the more visitors a Web site receives, the more valuable it becomes. Some Web sites that employ cloaking have considerably different content from what the user intended to find and are often of pornographic nature. As such, some feel that the rules that govern marketing need to be revamped to ensure consistency among standards in relation to newly emerging marketing tactics.

Should the Marketing of Alcohol and Tobacco Be Limited?

Yes

Ninety percent of all smokers begin smoking before age 21, and 60 percent of current smokers picked up the habit before age 14 (U.S. Department of Health and Human Services 1989). The American Public Health Association, citing government research, states that every day "an estimated 3,900 young people under the age of 18 try their first cigarette" (American Public Health Association 2010). Clearly, children are the growth opportunity for the tobacco industry. If people do not start as children, they are significantly less likely ever to use the products. Cartoon characters were banned from tobacco advertising in 1991 after Joe Camel, the famous cartoon representative of the Camel cigarette brand, was shown to be more appealing to children than adults. In 2010, the Food and Drug Administration, which regulates tobacco sales, applied new restrictions

to cigarette vending machines and barred tobacco companies from advertising at popular sporting events or offering merchandise such as hats and T-shirts. Stipulations such as these are an attempt to prevent the exposure of children to tobacco marketing and, it is hoped, tobacco products.

Possibly the most disturbing of such accusations is the charge that the marketing and advertising firms working for the tobacco industry employed psychologists to better understand children and how to more effectively target them. One of the revelations of the recent tobacco-related court cases was that tobacco companies asked retail outlets to place tobacco products in proximity to external doors in unlocked cabinets. They told the store owners that they would be reimbursed for stolen products. A few stolen cigarettes today can lead to hundreds of cartons of cigarettes sold 20, 30, and 40 years later. Health departments have been quick to encourage stores to discontinue this practice.

The alcohol industry has not seen the same level of concern over the advertising of alcoholic beverages. For instance, the introduction of spirits advertising on cable television was not opposed in 1996, even though, according to the 1986 Nielsen Report on Television, children watch an average of 28 hours of television per week. Ironically, permission to advertise alcohol on television was granted five years after the banishment of cartoon characters from cigarette advertisements.

Currently, 70 percent of the U.S. population is 21 years of age or older. In accordance with industry codes for beer and distilled spirits, the placement of alcohol-related advertisements is permissible in nearly any piece of media that is not specifically geared toward young children (National Institute on Alcohol Abuse and Alcoholism n.d.). The concern is that the messages of alcohol companies are reaching a vast number of youths through the television programs they watch and the magazines they read in their homes. Some argue that seeing an advertisement for alcohol or tobacco next to an advertisement for a prestigious or widely desirable product may still be harmful because of an unconscious association that may be drawn by the reader (Marin Institute n.d.).

The Federal Trade Commission and the National Academies Press agree that there should be a reduction in the exposure of youth to alcohol advertising (National Center for Chronic Disease Prevention 2006). Research shows that limitations placed on marketing initiatives in the tobacco industry, in addition to federally funded tobacco education programs, have decreased the amount of tobacco usage. This suggests that similar actions regarding alcohol would decrease sales and consumption as well as the occurrence of the third-leading cause of preventable death in alcohol-related fatalities in the United States (Centers for Disease Control and Prevention 2003). Though exposure of alcohol advertising to youths has been shown to have decreased 31 percent between 2001 and 2004, children are still more exposed, per capita, than adults (Center on Alcohol Marketing and Youth 2007).

Organizations such as Mothers Against Drunk Driving and the Center on Alcohol Marketing and Youth feel that the alcohol industry should not be the only supplier of

education concerning alcohol consumption. They advocate federal funding for alcohol education and suggest that the alcohol industry no longer be permitted to practice self-regulation, as was done with the tobacco industry. Self-regulation of alcohol marketing means that the industry itself helps set the standards of regulation in regard to advertising.

Opponents of alcohol self-regulation were recently disappointed when the viability of Australia's self-regulation policy, which mirrors that of the United States, was questioned in a series of allegations. Some marketing tactics that were examined were deemed to be sexually explicit or specifically geared toward children. One of the alcohol advertisements that was often singled out featured the phrase "Come out to play" written in ink on the palm of a woman's hand. It was argued that this advertisement was aimed at children.

The criticism did not bring about a substantial change in self-regulation policy, and this lack of action was felt by many alcohol activists to be a slap on the wrist for a major violation against alcohol advertising regulations and a reminder of the alcohol industry's power. The alcohol companies claim no wrongdoing.

No

Alcohol and tobacco companies already face advertising restrictions that are unheard of in other industries. The International Code of Advertising, issued by the International Chamber of Commerce, asserts that "advertising should be legal, decent, honest, truthful, and prepared with a sense of social responsibility to the consumer and society and with proper respect for the rules of fair competition" (International Chamber of Commerce n.d.). Yet tobacco and alcohol must adhere to additional stipulations. Tobacco has been the target of a national campaign called "We Card" that requires cashiers to ask for identification from anyone who appears to be younger than 30 years old, and limitations are placed on point-of-purchase, or on-site, marketing initiatives for alcoholic products.

Many products in the marketplace have associated risks, but alcohol and tobacco are among the few that face marketing regulations because of the detrimental effects on their consumers' health. For example, an estimated 17 percent of children and adolescents in the United States are overweight (Centers for Disease Control and Prevention 2010). Being overweight can lead to numerous health problems, such as type 2 diabetes, hypertension, stroke, heart attack, heart failure, gout, gallstones, and osteoporosis. However, there are no laws limiting fast-food commercials that target youths. A Burger King Whopper with a large fries and a Coke has 1,375 calories, yet there is no surgeon general's warning on fast-food wrappers (Healthy Weight Forum n.d.). Considering the marketing efforts, availability, and low cost of such restaurants, one would think they would require additional marketing rules, just like alcohol and tobacco. Yet even as obesity is being proclaimed a national epidemic, the post-meal cigarette is still getting all the attention.

The self-regulation policy of the alcohol industry receives much criticism, yet it has many positive attributes. For example, an extensive amount of marketing issues can be attended to without involving constitutional issues of government regulation (Federal Trade Commission 2003). The lack of costly deliberation in high courts concerning alcohol marketing issues saves considerable amounts of taxpayer dollars. A 1999 report to Congress noted that most companies in the alcohol industry complied with the codes of self-regulation and that the culture of some companies causes their practices to supersede industry standards (Federal Trade Commission 2003).

Sports Illustrated is a magazine devoted to sports that is enjoyed by both adolescents and adults. The results of an examination of the alcohol and tobacco advertisements in the last issue for July and the first issue for August from 1986, 1996, and 2006 showed the following:

- In 1986, there were nine alcohol advertisements and five tobacco advertisements (*Sports Illustrated* July 28 and August 4, 1986).
- In 1996, there were five alcohol advertisements and three tobacco advertisements (*Sports Illustrated* July 22 and August 5, 1996).
- In 2006, there were four alcohol advertisements, one tobacco advertisement, and one advertisement for Nicorette gum, a nicotine replacement therapy designed to reduce nicotine cravings (*Sports Illustrated* July 31 and August 7, 2006).

This example shows a decrease in the marketing of alcohol and tobacco over the 20-year period. Also note that the 2006 issues included an advertisement for Nicorette, a product used to assist in breaking the smoking addiction. This is just one illustration of the change that has already taken place.

Conclusion

Ultimately, the burden of counteracting the adverse impact of marketing alcohol and tobacco lies with each of us, as does the decision whether to use such substances. Most organizational and legislative movements do not seek to revoke the right of adults to use these legal substances. The provision of all the facts that will allow individuals to make their own informed decisions seems to be the desire of most groups, regardless of their stance on the product.

The marketing issues surrounding alcohol and tobacco focus on who is really making your decisions, you or marketers? Marketers are trained so well in the art of manipulation that most people fall victim to their messages without realizing it. The most prevalent question about the marketing of alcohol and tobacco is whether such advertising leads the average person (or child) to make poor lifestyle choices.

Should restrictions regarding the marketing of harmful products be implemented to save us from ourselves, and, if so, what should be deemed harmful? For example, is eating fast food on a regular basis harmful? The answer is probably dependent on the individual.

Marketing works. It convinces us to buy products that we do not need, cannot afford, and, in some cases, should not use for a variety of reasons. The goal in regard to the marketing of potentially harmful products is to present both the good and bad features and then allow people to decide for themselves.

See also **Marketing to Children; Addiction and Family (vol. 3)**

Further Reading

American Medical Association (Educational Forum on Adolescent Health), "Youth Drinking Patterns and Alcohol Advertising." 2003. http://www.ama-assn.org/ama1/pub/upload/mm/39/proceedingsalcohol.pdf

American Public Health Association, "Tobacco Facts." 2010. http://www.apha.org/programs/resources/tobacco/tobaccofacts.htm

Center on Alcohol Marketing and Youth, "Drowned Out: Alcohol Industry 'Responsibility' Advertising on Television, 2001–2005." June 2007. http://www.camy.org

Center on Alcohol Marketing and Youth, *Fact Sheets.* http://camy.org/factsheets/index.php?FactsheetID=16

Centers for Disease Control and Prevention. Childhood Overweight and Obesity, 2010. http://www.cdc.gov/obesity/childhood/

Centers for Disease Control and Prevention, "Point-of-Purchase Alcohol Marketing and Promotion by Store Type—United States, 2000–2001." *Morbidity and Mortality Weekly Report* 52, no. 14 (2003): 310–313. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5214a4.htm

Centers for Disease Control and Prevention, "Smoking-Attributable Mortality, 2000–2004." 2008. http://www.cdc.gov/tobacco/data_statistics/mmwrs/byyear/2008/mm5745a3/highlights.htm

Essential Action, Global Partnerships for Tobacco Control, *Marketing Tobacco and the USA.* http://www.takingontobacco.org/photos/usa.html

Federal Trade Commission, *Alcohol Marketing and Advertising: A Report to Congress.* September 2003. http://www.ftc.gov/os/2003/09/alcohol08report.pdf

Goldberg, Marvin E., and Hans Baumgartner, *Cross-Country Attraction as a Motivation for Product Consumption.* http://marketing.byu.edu/htmlpages/ccrs/proceedings99/goldberg.htm

Healthy Weight Forum, *Calorie Counter: Burger King.* http://www.healthy weightforum.org/eng/calorie-counter/burger_king_calories

International Chamber of Commerce, "Frequently Asked Questions." http://www.iccwbo.org/uploadedFiles/ICC/policy/marketing/Statements/338%20FAQs%20ICC%20Advertising%20and%20Marketing%20Code.pdf

Kuo Meichun, Henry Wechsler, Patty Greenberg, and Hang Lee, "The Marketing of Alcohol to College Students: The Role of Low Prices and Special Promotions." *American Journal of Preventive Medicine* 25, no. 3 (2003): 204–211.

Marin Institute, *Alcohol Facts: Marketing to Youth.* http://www.marininstitute.org/alcohol_industry/marketing_to_youth.htm

Mayo Clinic, "MayoClinic.com Offers Online Alcohol Self-Assessment Tool." 2007. http://www.mayoclinic.org/news2007-mchi/4098.html

National Institute on Alcohol Abuse and Alcoholism, "College Drinking: Changing the Culture." 2009. www.collegedrinkingprevention.gov/

National Institute on Alcohol Abuse and Alcoholism, "Environmental and Contextual Considerations." n.d. pubs.niaaa.nih.gov/publications/arh283/155-162.htm

Pennock, Pamela E., *Advertising Sin and Sickness: The Politics of Alcohol and Tobacco Marketing, 1950–1990.* Dekalb, IL: Northern Illinois University Press, 2007.

U.S. Department of Health and Human Services, *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General.* Atlanta: Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1989.

MARKETING TO CHILDREN

Phylis M. Mansfield and Michael Shally-Jensen

Purple ketchup, blue squeeze butter, and French fries that are flavored with cinnamon or chocolate—these were all products that were developed specifically to be marketed to children. But products marketed directly to children are nothing new. In the 1950s, the products were toys like Silly Putty, Monopoly, and Barbie. Today, those toys still exist, although the new holiday wish list includes items like iPods, cell phones, and video games.

Even the use of celebrity characters as advertising spokespeople is not a recent phenomenon. Today we have SpongeBob SquarePants, Dora the Explorer, and Blue from *Blue's Clues;* in the 1950s, there were Tony the Tiger, Cinderella, and Mickey Mouse.

Every one of us at one time or another has probably nagged a parent until a favorite toy was purchased. However, in today's society, there is growing concern over the increased consumption and spending by children. Some critics believe that companies are too aggressive in targeting children. Marketers respond that they are only providing the product; it is the parent's job to monitor how much the child spends.

But are children today really different from children of past generations? Are marketers today taking unfair advantage of children, or is the growth in children's consumption just a trickle-down effect of a larger consumer culture?

Children as Consumers

Children are becoming consumers at an increasingly younger age. Just a few decades ago, children were considered to be consumers, or brand aware, by the age of 7; now it's more like 3. Not only are they becoming more brand aware at an earlier age, but they are also spending their own money and influencing family spending in a significant way. In the United States, children ages 4 to 12 spend more than $50 billion directly and are estimated to influence more than $500 billion each year in family purchases, from furniture to the family minivan (Dotson and Hyatt 2005). In fact, kids influence about 62 percent of minivan and SUV purchases, which may be why a number of major manufacturers

have run ad campaigns featuring animated cartoon characters such as Jimmy Neutron or Shrek inspecting a vehicle and approving its features (see, e.g., Chrysler 2008).

Children Learn to Spend

Older children are turning to making their own money in order to support their spending habits. Over 55 percent of U.S. high school seniors work more than three hours each day, compared to 27 percent of their foreign counterparts. While many parents may feel that teen employment instills a work ethic early in life, it has been shown that grades and participation in school activities suffer when teens work during the school year (Quart 2004). It is difficult to determine which comes first, however: the positive work ethic a child develops as a productive member of society or the consuming culture that tells the teen he or she has to have the latest and coolest brand.

Similar logic has been used by parents to justify their children's use of debit and credit cards. Marketers promote the cards as ways to teach children how to spend money. However, they may also encourage them to spend money they don't have. Children as young as 8 years old have been targeted by marketers with their own credit card. Hello Kitty, a popular children's brand, has licensed its brand name to MasterCard, which markets the service directly to the parents. The card can be used at stores like a regular credit card or at an ATM to withdraw cash. Kids love it because it makes them look cooler than if they were just using cash (Bodnar 2005). Even the youngest consumers are taught to use plastic in their play. One toy company has a toddler's "first purse" play set that comes complete with a debit card and case. And the Hasbro company recently announced a British version of Monopoly that will use a debit card—no cash play money.

Marketers may tell parents that giving a child plastic helps them learn how to spend, but sociology experts tell parents that direct teaching episodes are a better way to teach children how to become good consumers. Some TV networks that target kids and teens have turned to an old-fashioned way to offer these teaching episodes by promoting "co-viewing," where the child and the parent watch TV together. Marketers actually promote

MARKETING FACTS AND FIGURES

- Companies spend about $17 billion annually marketing to children.
- Children aged 2 to 11 see more than 25,000 ads per year on television (a figure that does not include the Internet or other technologies and sources).
- Teens between ages 13 and 17 have on average 145 conversations per week about brands, which is double the same figure for adults (Campaign for a Commercial-Free Childhood n.d.).
- In the decade between the early 1990s and the early 2000s, there was a tenfold increase (1,000 percent) in the number of food products targeted to children and teens (Institute of Medicine 2006).

TABLE 1. Children's Influence on Family Purchases

Mothers Who Said . . .	Percentage
Kids are influential on purchases made in discount stores.	92
Kids are influential in deciding on vacations.	38
Kids are influential in deciding on computers.	33
Kids are influential in deciding on cell phones.	32
Kids are influential in deciding on family car.	28
They have asked kids to go online and research purchases for themselves.	77
They have asked kids to go online and research family purchases.	25

their products—brands and products whose purchase children significantly influence—to both the parent and the child at once. Cartoon Network shows commercials for automobiles, vacation destinations, and sit-down restaurants alongside those for McDonald's, Cheerios, and Mattel. To better understand this interchange of information, Disney ABC Kids Networks Group commissioned a research study of children's influence on purchases in which mothers and children between the ages of 6 and 14 were interviewed about their purchasing behavior. Some of the results are shown in Table 1 (Downey 2006).

Criticism of Children's Marketing

The growth in the spending power and influence of children has prompted criticism of marketers, parents, and legislators. Juliet Schor, an expert in consumerism and family studies, is one of those critics. In *Born to Buy,* she describes how children as consumers are changing: "Kids can recognize logos by eighteen months, and before reaching their second birthday, they're asking for products by brand name" (Schor 2005).

The increase in brand recognition by young children is at least partially due to the impact of television. In the 1950s, families typically had one television per household, and the programs directed at children were mostly Saturday morning cartoons and a few daily morning shows. Today, there is a proliferation of children's programming, some educational, some not so, and most accompanied by commercials. The typical commercial during a children's program is 15 seconds, half the length of a commercial targeted at older consumers. Children's attention spans are shorter, requiring only a brief ad message. The commercials are also more colorful and action oriented.

In addition to the increased number of ads directed at the children's market, there also has been an increase in the number of hours that children spend watching television and a decrease in the amount of parental control over what is viewed. Schor (2005) says that approximately 25 percent of preschool-age children have a TV in their own bedroom, and they watch that TV for a little over two hours each day. It is estimated that American children watch a total of 40,000 television commercials annually.

One research study by doctors at Stanford University found that children's demands for specific toys and foods increased with the time they spent in front of the television.

The third-grade children who were interviewed averaged 11 hours of TV time each week, and another 12 hours spent on video games or computers. The children were able to identify where the ideas for their requests for toys or food items came from—whether it was from the television or their peers (Murphy 2006).

The quest for brand loyalty is moving to increasingly younger television audiences. Marketers once targeted 7- to 12-year-olds. However, companies realized that they need to attract consumers to their brands at an even earlier age. The new target segment is the preschooler—children ages 2 to 5. In fact, the preschooler market has become increasingly competitive, and television has become a primary medium for advertising messages. "It is estimated that a successful preschool TV show generates more than $1 billion in retail sales in any given year across all related categories, including recorded media, in the U.S.," says Simon Waters, vice president of Disney Consumer Products, Disney's global franchise management branch (Facenda 2006).

Moreover, as more and more children at a younger and younger age spend greater amounts of their time social networking via the Internet (e.g., MySpace) or using handheld devices such as smart phones, the higher is the likelihood that marketers will continue to expand their efforts in these areas in addition to those they already undertake in the television industry.

Social Issues

Although parents are accountable for the consumer behavior of their children, there is still the question of corporate and social responsibility. The number of advertisements for children's products embedded in television programs and the increase of product placements and movie tie-ins have made the parent's job increasingly more difficult. SpongeBob SquarePants has his own toothpaste and toothbrush product line; Dora the Explorer has a lunch box and other products; and every time a children's movie is released, it is now paired with some type of premium at a fast-food restaurant.

But parents have had to contend with spokescharacters like SpongeBob SquarePants for decades (i.e., the Donald Duck lunch boxes of the 1950s). What is it about today's environment that makes it different from that of previous generations? Two factors that have an impact on the consumer behavior of children are time and money. Parents spend less time with their children today than they did in previous decades. Many children living in single-parent or two-income households obtain a large portion of their skills from their peers at day care or at school. And even schools, once a sanctuary from pervasive marketing tactics, have become the new frontier for commercialism. Faced with declining budgets, schools are turning to subsidies from corporations, which are allowed to come into the school with a program, albeit it educational, that is sponsored by their firm. These sponsorships are considered by some to be subtle forms of advertising.

Children are also more active in sports and other extracurricular activities than they were in previous decades. Many parents find themselves shuttling their children from

one event to another after school, the children's calendars booked almost as tightly as their own. Parents are also feeling pressure from longer working hours, which leave them less time and energy to spend with their children. Add to that the fact that the square footage of the average home in the United States has increased significantly, which requires more upkeep and maintenance, and parents have more to do during their off hours. We are working more and spending more, yet relaxing less. In fact, U.S. workers spend more hours at work each week and have less vacation time than workers in any other industrialized nation in the world.

Marketers know that parents who spend less time with their children are willing to spend more *on* them, a relationship that has been substantiated by researchers. It is probably no surprise that children are moving from reasonably priced toys to more expensive electronic products at an ever-decreasing age. Younger children are requesting expensive products like Wiis, cell phones, iPods, and laptops—the type of products that used to be reserved for teenagers and adults. Marketers say that the market for electronic products aimed at tweens grew 46 percent in 2004 (Kang 2005).

When Marketing Tactics are Questionable

Marketers can use subtle messages to get to young consumers that parents may find difficult to overrule. When the tobacco companies were required to remove cigarette ads from media and even withdraw their sponsorship of the Winston Cup NASCAR race, they were forced to look for other ways to promote and increase the sales of their products. One such way is through the product itself. R. J. Reynolds, the company that first used Joe Camel in questionable advertising campaigns, went on to market its products to younger smokers in a different way. R. J. Reynolds introduced in 1999 a new line of candy-flavored cigarettes. They came packaged in a shiny tin box and had names like Beach Breezer (watermelon), Bayou Blast (berry), and Kauai Kolada (pineapple and coconut). The cigarettes were flavored with a tiny pellet that was slipped into the filter (Califano and Sullivan 2006). R. J. Reynolds was criticized for marketing its product to children, who are more likely to begin to smoke if the product tastes better. They maintained that they were only marketing the product to the adult who already was a smoker but wanted a change of flavor. It is common knowledge that most adult smokers begin prior to their 18th birthday. Currently, the average age at which young people begin to smoke is 11 (Mansfield, Thoms, and Nixon 2006).

The flavored cigarettes were once advertised heavily in magazines read by young boys and girls; however, pressure from federal legislators made them retract the ads, and in 2006 the company discontinued this line of cigarettes.

When Marketing Tactics are Used for Good

Not all marketing is necessarily evil, however, even when it is directed toward children. Marketing programs throughout the years have helped children to learn basic skills.

Think of McGruff taking "a bite out of crime." Today one area of concern in the United States is the growing epidemic of childhood obesity. In response to this epidemic, several corporations have developed new marketing campaigns to offset the negative effects of their products. Both Coca-Cola and McDonald's launched fitness programs that are presented in schools and encourage healthy food choices and exercise. Fast-food restaurants like Wendy's and McDonald's have added selections like apple slices and mandarin oranges to their children's menus as an alternative to French fries. General Mills now produces its cereals with whole grains. Other companies are reducing the trans fats in their cookies, crackers, and other baked goods. While the trend toward more healthful eating is at least for now being directed at children, it will be interesting to see how many of the products that are typically sold to this target audience will actually change.

ADVOCACY VERSUS BIG BUSINESS

It is perhaps too easily forgotten that popular children's brands, so appealing to kids and parents alike, have profit-driven corporations behind them. In this world where business interests and family needs meet, there has always been a place for watchdog groups that monitor new products, assess the accuracy of claims made on their behalf, and judge their appropriateness for young consumers.

One such group is the Campaign for a Commercial-Free Childhood (CFCC), based in Boston. This nonprofit organization seeks to counter the negative effects of consumer culture on children. Since its founding in 2000, CFCC has successfully mounted campaigns to get the children's publisher Scholastic to stop selling Bratz doll products at school book fairs (the dolls are viewed as being overtly sexual); to cease the airing of commercial radio (BusRadio) on school buses; to end the practice of inserting Happy Meal ads in report card envelopes; and to curtail the use of product placements (e.g., by Cover Girl) in novels intended for girls (Turner 2010).

In 2009, CFCC prodded Disney to stop using the term "educational" in association with its Baby Einstein line of videos for children aged two and younger. The group charged that there was no firm basis to the claim that the videos served an educational purpose, and the American Academy of Pediatrics had previously recommended that children of this age watch no television or videos (Lewin 2010). Unfortunately in this case, CFCC experienced backlash in the wake of its campaign. A Harvard-affiliated children's mental health center that had been sponsoring CFCC and providing it with office space, the Judge Baker's Children's Center, pulled its support and asked CFCC to leave. It was reported that Disney had contacted the center three times to express its displeasure with CFCC. Although the details of those conversations were not made public, it was widely speculated that pressure, possibly legal pressure, was applied by the corporation. In explaining the Judge Baker's decision to oust CFCC, a spokesperson would only allow that the center's board found that "the targeting of individual large corporations [by CFCC]... poses too much risk" (Turner 2010).

The Marketer's Position

The KidPower Conference meets annually to discuss the latest techniques, successes, and failures of marketing to children and teens. Marketers come to learn the latest on how to maximize the appeal of their brand—more specifically, to target certain age groups and create ads that appeal to different ethnic targets. Additionally, there are sessions on how to do social marketing. Social marketing is using traditional advertising and other marketing techniques to change a child's behavior on issues like refusing drugs, exercising more, and becoming more tolerant of others. While the social marketing conference sessions are definitely targeted at improving society, the overwhelming majority of the conference is on how to market products and brands to kids.

Marketers feel that they are just offering a product that is for sale and that ultimately consumer education needs to start at home. Some consumer advocates agree that parents have a significant portion of the responsibility. Jeff Dess, a prevention specialist for schools in Cobb County, Georgia, says, "We need to talk with our kids about these issues and consider changing our own habits" (McAulay 2006). Some ad agency executives are in agreement with Dess's statement and assert that it is parents and other relatives who are working in ad agencies and in corporations who are advertising the products, so they are also concerned about what the children in their lives are exposed to. Ultimately, it is the parent's job to determine what food his or her children eat and what they buy (McAulay 2006).

See also **Marketing of Alcohol and Tobacco; Marketing to Women and Girls**

Further Reading

Bodnar, Janet, "Give Kids Credit? Not So Fast." *Kiplinger's Personal Finance* (March 2005). http://www.kiplinger.com

Calfee, John E., "The Historical Significance of Joe Camel." *Journal of Public Policy and Marketing* 19, no. 2 (2000): 168–182.

Califano, Joseph, and Louis Sullivan, "The Flavor of Marketing to Kids." *Washington Post* (June 29, 2006).

Campaign for a Commercial-Free Childhood, http://www.commercialfreechildhood.org

Cheap-Cigarettes.com, *Camel Cigarettes.* http://www.cheap-cigarettes.com/camel-cigarettes.asp

Chrysler Group LLC., "2008 Chrysler Town and Country" (television commercial). http://www.youtube.com/watch?v=gEo0fPCHkGw

Dotson, Michael J., and Eva M. Hyatt, "Major Influence Factors in Children's Consumer Socialization." *Journal of Consumer Marketing* 22, no. 1 (2005): 35–42.

Downey, Kevin, "What Children Teach Their Parents." *Broadcasting and Cable* (March 2006). http://www.broadcastingcable.com

Facenda, Vanessa, "Targeting Tots." *Retail Merchandiser* (June 2006).

Institute of Medicine, *Food Marketing to Children and Youth.* Washington, DC: National Academies Press, 2006.

Kang, Stephanie, "Babes in iPodland; Children Go from $30 Toys to $300 Electronic Gadgets at Alarmingly Early Ages." *Wall Street Journal* (November 28, 2005).

Lewin, Tamar, "After Victory over Disney, Group Loses Its Lease." *New York Times* (March 9, 2010).

Mansfield, Phylis, Peg Thoms, and Charisse Nixon, "An Exploratory Analysis of the Relationship between Consumer Socialization Agents and Children's Consumption of Tobacco." *Journal of College Teaching and Learning* 3 (January 2006).

McAulay, Jean, "Buy-Buy, Childhood Pervasive Marketing Aimed at Kids Worries Parents and Experts." *Atlanta Journal-Constitution* (February 19, 2006).

Murphy, Dave, "Children's Demands for Toys and Food Increase with TV Time, Researchers Say." *San Francisco Chronicle* (April 5, 2006).

Quart, Alissa, *Branded: The Buying and Selling of Teenagers.* New York: Basic Books, 2004.

Schor, Juliet, *Born to Buy.* New York: Scribner, 2005.

Turner, Maureen, "Angerfixing the Mouse." *Valley Advocate* (Northampton, MA) (March 18, 2010).

MARKETING TO WOMEN AND GIRLS

Phylis M. Mansfield and John D. Crane

Cosmetics, age-defying cream, weight-loss products, and revealing clothing—these are all products almost exclusively marketed to women. The marketing of beauty products to women is not a new practice. Several decades ago, products were marketed to women with the assumption that they were housewives or were looking for a husband. The product being marketed was designed to assist them in either of these endeavors. Betty Crocker made women's lives easier if they were struggling to do the laundry, feed the children, and put a decent dinner on the table by 5:30 p.m., when their husbands came home from work. Other products addressed the woman who was either trying to stay youthful or trying to be attractive in order to get a husband. Even cigarette companies employed tactics targeted toward this group of women. During the mid-1920s, it was unacceptable for women to smoke in public; however, the tobacco companies saw women as a large target segment of the population that was virtually untouched. The American Tobacco Company began a campaign for its brand, Lucky Strike, targeted at women with the slogan, "Reach for a Lucky Instead of a Sweet." It was the first cigarette campaign that featured a picture of a woman in the ad and that began to associate the idea of smoking with having a slim body (*Albert Lasker* n.d.).

The Impact of Social Change

In the 1970s and 1980s, social convention began to change with regard to the role of women, possibly due to the rise in women's participation in the work force. Advertising changed and began portraying women as confident individuals who could effectively balance their personal and private endeavors. One such ad campaign was for the

perfume Enjoli, by Revlon. Debuting during the late 1970s, its jingle began, "I can bring home the bacon, fry it up in a pan, and make you never forget you're a man. 'Cause I'm a W-O-M-A-N" (Vranica 2003). In recent years, advertising strategy has reflected the success of women as breadwinners, executives, and business owners. Many products that were traditionally marketed to men, or to the household as a whole, are now marketed to women. Sellers of automobiles and homes and investment banking advertise to women specifically, acknowledging their status in the marketplace. However, despite the movement toward affirming women as self-confident and successful, there is also another trend that appears to discredit their accomplishments and demean them as sexual objects. Marketers present the idea that women must be physically perfect in order to be truly accomplished. This quest for the perfect body has made it now socially acceptable to openly discuss one's latest cosmetic surgery. The negative impact that this pressure from the media has on women may be filtering down to their daughters, even those of a very young age.

What is the Ad Selling?

Those who have browsed the pages of *Cosmopolitan, Vogue,* or *GQ* have most likely perused page after page of half-naked women advertising various beauty products. In some, just a silk scarf is strategically placed across the woman, who is selling a product such as moisturizing lotion, shampoo, or even men's cologne. Airbrushing and other technologies provide the magazine glossies with perfect-looking models, devoid of any blemish or cellulite. There is no doubt that sexy photos of women can help sell products to men, but how do women and girls respond to this marketing technique? Clearly, the photos used in many ads have no connection to the actual use or purpose of the product. For example, diet products and exercise machines should be used only for health-related reasons and should only be used under the direct supervision of a doctor. The ads rarely present this aspect of the product's use and instead focus on the physical attractiveness of the user.

There is a growing concern about the effect this type of advertisement has on women's and girls' self-images. One doesn't have to look far to see the impact that this type of body consciousness has on young women in the movie industry. Tabloids contain story after story discussing how a young star is looking extremely thin after losing weight, some to the point of anorexia. Even a 2006 television advertising campaign for a health insurance company stresses the physical appeal rather than the health-related benefits of physical exercise programs for young girls. HealthMark, a BlueCross BlueShield affiliate, had a young girl playing soccer while talking about how she used to hate to shop for clothes because she was "big." Now she doesn't mind shopping and loves her team picture because she doesn't look "big" anymore (HealthMark 2006). In an effort to diminish the obesity epidemic in the United States among children, the ads promoting increased activity should be applauded. It is questionable, however, whether they should focus more on a child's appearance than the health benefits that result from exercise.

WHAT'S IN A SIZE?

For some time, the clothing industry has not been held to any standardized measurements in the design and creation of women's apparel. It's not a secret between women that finding waist sizes that fit is as much of a gamble as picking a horse based on its name. One of the main reasons for the large discrepancy between designers' sizes is their original consumer segment. All clothing is designed with a specific consumer in mind. In women's fashion, consumers at higher-end stores usually prefer high fashion that typically conforms to the prescribed industry image for body size—which is tall and thin. For example, the women auditioning for the popular television program *America's Next Top Model* need to be at least five feet seven inches tall—and contestants who happen to be six feet tall need to weigh around 135 pounds.

This creates a discrepancy since, in 2010, the average American woman weighed between 142 and 165 pounds and was five feet four inches tall—and therefore is not the target of high-end retailers. Moderate retailers offer the average American woman a wide range of sizes to fit the variations of women's bodies. Recently, the sizes of high-end and moderately priced designers have been growing further apart. High-end retailers have stringent measurements based on industry standards, while those at moderately priced retailers have more flexibility because they target a wider audience and their clothes are not necessarily connected with status. A trend of stores providing so-called vanity sizing has developed. For example, over the past 20 years, the average size 8 dress has increased two inches in waist size. By increasing the waist measurement while keeping the pants size the same, corporations can be more profitable. Women want to feel like the models they see in advertisements and are more likely to shop at a store where size 6 pants fit like a size 10.

"Problem areas" identified by women when looking for clothing and the percentage of women who find a particular area to be problematic include:

- Hips (35 percent)
- Bust (32 percent)
- Waist (32 percent)
- Rear (23 percent)
- Length (20 percent)
- Thighs (17 percent)
- Back (13 percent)

A Cause for Alarm?

Advertisements reflect and shape cultural norms, selling values and concepts that are important to daily living. The trend of using objectified images of the female body in the media is not a new area of research, nor a new area of concern. Consumer activists and some researchers believe that marketers have gone too far in their advertising strategies to women by presenting an unattainable or unhealthy image. One voice of criticism back in

THE FINANCIAL SIDE OF COSMETIC SURGERY

Considering plastic surgery, but don't have the funds to get it? Cosmetic—or elective—plastic surgery is a booming business. Americans spent $10.5 billion on cosmetic procedures in 2009. A number of financial institutions offer financing options for individuals who would like to go under the knife but don't have the funds. According to Helen Colen, "It's exploding; everyone is jumping in." Currently, the cosmetic lending market is approaching the $1 billion mark, but experts expect that figure to triple within the next few years.

The application process is very simple. Patients can have doctors' offices make a phone call to a lending institution and can be approved within an hour. However, not all is as rosy as it seems. Critics have suggested that people are borrowing money they don't have—to get a procedure they don't need. The majority of cosmetic procedures today are performed on individuals who earn between $30,000 and $90,000. People who opt for financial assistance are most likely those who don't have access to the funds.

Here are the average costs for some cosmetic procedures:

- Botox injection: under $500
- Liposuction: $2,000 to $10,000
- Nose job: $3,000 to $12,000
- Face lift: $6,000 to $12,000
- Eyelid tuck: $1,500 to $7,000
- Breast enhancement: $5,000 to $7,000
- Tummy tuck: $5,000 to $9,000

In 2009, Democrats in Congress proposed a tax on cosmetic surgery to help pay down the nation's health care costs as part of an overall health care reform effort, but the measure was later removed from the bill.

Sources: American Society of Plastic Surgeons. http://www.plasticsurgery.org; Plastic Surgery Research. http://www.cosmeticplasticsurgerystatistics.com/costs.html

1963 was that of Betty Friedan, who railed against the "feminine mystique." Friedan reported that, by the end of the 1950s, women who had once wanted careers were now making careers out of having babies. Manufacturers sold bras with false bosoms made of foam rubber for girls as young as 10. Thirty percent of women dyed their hair blonde and dieted so they could shrink to the size of the super-thin models. According to department stores at that time, women had become three to four sizes smaller than they had been in the late 1930s in order to fit into the clothes that were marketed to them (Friedan 2001). Freidan believed that women were being manipulated into becoming the ideal housewife—a Stepford-type housewife—and were feeling a great sense of emptiness in their lives.

The fashion industry may be turning a corner, however. In 2006, the organizers of Madrid's fashion week in Spain banned models who were deemed to be too skinny.

After a model died during a fashion show in South America in August 2006, the subject of extreme dieting became a topic of discussion, resulting in the ban. The typical runway model in the industry is reported to be five feet nine inches tall and weigh 110 pounds, with a BMI (height-to-weight ratio) of 16. She wears a size 2 or 4. The organizers of the Madrid show required the models to have a BMI above 18, which is closer to five feet nine inches tall and a weight of 123 pounds. In contrast, the average American woman is five feet four inches tall, weighs between 142 and 165 pounds, and wears a size 14 (Klonick 2006).

The Emphasis on Beauty

Critics of advertising suggest that the use of nonfunctional aspects in advertising creates an artificial need for many products that do not fulfill a basic physiological need. They believe that the use of perfectly airbrushed models and those with extremely thin bodies suggests to women that they should be just as attractive as the models. This quest for perfect beauty has contributed to the explosive growth of the plastic surgery industry in the United States, where women account for almost 90 percent of all surgeries. In 2008, surgeons performed 12.1 million cosmetic procedures, up 3 percent (even in a recession) from the previous year. Cosmetic surgery is becoming so commonplace that plastic surgeons are seeing increased numbers of men giving it to their girlfriends and wives as Valentine's Day gifts. Experts such as John W. Jacobs, a Manhattan psychiatrist, believe that the gift can be romantic if the recipient longs for it (Kerr 2006).

What is the Effect on Young Girls?

This focus on the emotional and sexual enhancement that products or services offer feeds into the problem of distorted body image and the low-self esteem of many young women. The fascination with the feminine ideal can develop early and can be seen as early as age six, according to data collected for an *Oprah Winfrey Show* a few years ago. "Children are becoming obsessed with external beauty at a much younger age," Winfrey noted, "and the consequences are going to be shattering." One story was about a young toddler, only three years old, who was obsessed with her looks. The young girl demanded lipstick, makeup, and hairspray in order to look beautiful. When refused these items, she looks into the mirror, cries, and says that she doesn't look pretty. The young girl's mother fears what the youngster will be like in another 10 years and worries that her own insecurities have added to the problem ("Healing Mothers" 2006).

A study by the Dove Campaign for Real Beauty found that 57 percent of young girls are currently dieting, fasting, or smoking to lose weight. And almost two-thirds of teens ages 15 to 17 avoid activities because they feel badly about their looks (Etcoff et al. 2004). Girls at younger ages are also feeling the need to diet. One four-year-old girl studied skips breakfast and eats only fruit for lunch because it will make her skinny. While

her mother thinks that other children's comments about her daughter being fat are to blame for the young girl's behavior, interviews uncovered other possible reasons. The girl's mother reported that she measures out exact portions of her own food at mealtimes and exercises at least once each day, sometimes twice ("Healing Mothers" 2006). Robin Smith, a psychiatrist, says that mothers unconsciously hand down their insecurities to their children. Parents, as well as peers and the media, shape children's self-image and must work to break the curse that is handed down from generation to generation (Etcoff et al. 2004).

During adolescence, a girl's obsession with her body becomes even more apparent. This is accompanied by increased attention to what her peers think and increased attention to the media and advertising. Not only are younger girls and adolescents using cosmetics and dieting, but they are also turning to plastic surgery at younger ages than ever before. Like their mothers, they are in search of the perfect body, and it shows in the numbers of surgeries done on girls under the age of 18. In 2003, the number of plastic surgeries performed on children under 18 was almost 75,000 in the United States, a 14 percent increase over those performed in 2000. According to the American Society of Plastic Surgeons, the number of breast augmentation surgeries done on girls under 18 tripled in just one year (Kreimer 2004).

This focus on the perfect and slimmest of bodies may also be the root of the increase in cigarette smoking by girls. The number of teenage girls who smoke and abuse prescription drugs has now surpassed that of boys. In 2005, more girls began smoking than did boys (Connolly 2006). One reason for this increase may be body image. These young women have not seen the advertisement for the Lucky Strike cigarettes that urged consumers to "Reach for a Lucky Instead of a Sweet," but they are getting the message that cigarettes can help you stay slim. Girls as young as nine years old have been reported to take up smoking in attempts to lose weight (Greene 1999).

On the Other Hand—The Benefits of Advertising

In today's fast-paced society, marketers play an important role in educating consumers about new products and processes available to them. The average consumer has a plethora of choices available to him or her in an infinite marketplace. If each person had to personally evaluate each product, no one would ever be able to make an informed or timely decision concerning the functionality of a product for a certain purpose.

This is particularly apparent in the cosmetic and beauty industry. Technology is constantly evolving so that new products providing better health rewards without potentially damaging consequences can be created. The marketing of these types of products allows consumers to quickly evaluate the products in a company's product line. This type of marketing strategy only shows the consumer what is available in the marketplace. It does not make consumers purchase the product or buy into the idea of the marketing message; it is purely informative. Marketers assert that they cannot make someone buy

a product; they can only influence people. It makes sense to market to women, because 80 percent of discretionary consumer spending in the United States is by women. Women buy 90 percent of all food, 55 percent of all consumer electronics, and over half of all cars sold ("Hello Girls" 2009).

The companies that market beauty and fashion products suggest that the healthy-looking models in beauty advertisements provide good role models for girls and women to aspire to. The products they are advertising provide women the means to achieve whatever level of beauty and healthiness they desire. Therefore, they say, marketers are actually providing a public service to today's busy woman.

The dynamic nature of marketing allows the consumer to make the decision to listen to the message or to move on. Advertisements on television and in magazines clearly give the consumer the opportunity to change the channel or flip the page if he or she does not approve of the message. Ultimately, it is the consumer who chooses to listen to or ignore the message that is presented.

See also **Advertising and the Invasion of Privacy; Marketing to Children; Sex and Advertising; Eating Disorders (vol. 3)**

Further Reading

Albert Lasker Promoted Lucky Strike, n.d. http://users.ap.net/~burntofferings/adslasker.html

American Academy of Facial Plastic and Reconstructive Surgery, http://aafprs.org

Centers for Disease Control, "Body Measurements." http://www.cdc.gov/nchs/fastats/bodymeas.htm

Connolly, Ceci, "Teen Girls Using Pills, Smoking More Than Boys." *Washington Post* (February 9, 2006).

Etcoff, Nancy, Susie Orbach, Jennifer Scott, and Heidi D'Agostino, *The Real Truth about Beauty: A Global Report.* September 2004. http://www.campaignforrealbeauty.com/uploadedfiles/dove_white_paper_final.pdf

Friedan, Betty, *The Feminine Mystique.* New York: W. W. Norton, 2001 [1964].

Greene, Alan, "Preteens Start Smoking to Control Weight." *Pediatrics* (October 1999): 918–924.

Grogan, Sarah, *Body Image.* New York: Routledge, 2007.

"Healing Mothers, Healing Daughters." *Oprah Winfrey Show* (April 28, 2006).

HealthMark advertisement, Broadcast on NBC, May–September 2006.

"Hello Girls: Recession-Hit Companies Target Female Customers." *Economist* (March 12, 2009).

Kerr, Kathleen, "Plastic Surgery Becomes Hot New Gift for Valentines." *Newsday* (February 13, 2006).

Kilbourne, Jean, *Deadly Persuasion: Why Women and Girls Must Fight the Addictive Power of Advertising.* New York: Free Press, 1999.

Klonick, Kate, "New Message to Models: Eat!" *ABC News Internet Ventures* September 15, 2006. http://abcnews.go.com/Entertainment/story?id=2450069&page=1

Kreimer, Susan, "Teens Getting Breast Implants for Graduation." *Women's eNews.* June 6, 2004. http://www.womensenews.org/story/health/040606/teens-getting-breast-implants-graduation

Lamb, Sharon, and Lyn Mikel Brown, *Packaging Girlhood: Rescuing Our Daughters from Marketers' Schemes.* New York: St. Martin's Press, 2006.

Vranica, Suzanne, "Marketing and Media Advertising: Stereotypes of Women Persist in Ads; Bikinis Still Sell the Suds, as Masculine Views Reign; Agency Gender Gap Blamed." *Wall Street Journal* (October 17, 2003)

Wykes, Maggie, and Barry Gunter, *The Media and Body Image.* Thousand Oaks, CA: Sage, 2005.

MINIMUM WAGE

Walter J. Wessels

Minimum wage laws set the minimum hourly wage a worker can be paid. A minimum wage of $7.25, for example, means a worker cannot legally contract with an employer to work for below $7.25 an hour.

The federal minimum wage sets the wage for the whole nation. In 2010, the minimum wage was $7.25. The federal minimum wage for tipped workers is lower than the standard minimum wage, on the assumption that these workers can meet or exceed the minimum wage through tips. On the other hand, many states have a minimum wage that is higher than that mandated at the federal level. Information on the current minimum wage, both federal and state, and who is covered by the law is available at the Bureau of Labor Statistics Web site (www.bls.gov).

Approximately half of those earning the minimum wage (or less) are young workers (below age 25). Most are adults living alone (23 percent) or teenagers living with their parents (41 percent). About 15 percent are adults raising a family. Another way to look at the statistics is to consider that about 10 percent of teenagers earn the minimum wage (or less), and 2 percent of those above age 25 earn the minimum wage or less. Many studies show that increasing the minimum wage has little impact on the poor. One study, for example, found that, if the minimum wage were raised 30 percent, less than 2 percent of those living in poverty would have their wages directly increased (Wilson 2001).

Many economists oppose the minimum wage for two reasons. First, the minimum wage law, in effect, prohibits from working anyone who cannot produce enough value in his or her work to cover the minimum wage. That is, a minimum wage of $8 an hour does not help the person who can produce a value of only $6 an hour. In addition, it does not seem worthwhile to help 10 workers to earn $1 more an hour, for example, if another worker is forced out of a job paying $5 an hour. While there is controversy about whether a small increase in the minimum wage will reduce jobs, there is no doubt that a very high minimum wage will cause substantial job losses. It may be argued that a very high minimum wage is necessary to give workers a living wage, but this would be counterproductive if the worker cannot get hired at all. To a worker put out of a job, a hiring wage is better than a living wage.

The second reason many economists oppose the minimum wage is that there is a more efficient method of helping the working poor without jeopardizing their jobs—the earned income tax credit. If a person is poor, the earned income tax credit supplements his or her wage earnings. For example, a poor person earning $6 an hour might get another $3 an hour from the government. While the current earned income tax credit program it not that generous, it could be changed to be so and to significantly increase the incomes of the poor.

An earned income tax credit has several key advantages over the minimum wage. First, it only goes to the poor, while the minimum wage favors those whom employers want to retain (who are often the better-educated teenagers whose parents who are well off). Second, the minimum wage does impose a cost on society in the form of higher prices and lower profits. Because the poor are a small fraction of minimum-wage workers, and because the earned income tax credit only goes to the poor, for the same social cost, the earned income tax credit can give the poor a much higher wage than a minimum wage having the same social cost. Third, there is a social justice argument. The earned income credit is paid for by taxpayers, not employers. It can be argued that society (mainly taxpayers) benefits from making the poor better off, so it is just that society—not employers—should pay the cost of making the poor better off. The earned income tax credit is more just than the minimum wage because it is paid for by society. There are some who feel that employers should do more for workers. But employers are doing something for workers—they are giving them a job. Blaming employers for not doing more is as unjust as saying the Salvation Army is responsible for poverty because it could do more.

The Minimum Wage and Employment

Does economic theory say that the minimum wage reduces employment? It does say that a large increase in the minimum wage would reduce employment. But what about a small increase similar in magnitude to past increases in the minimum wage? When labor markets are competitive, wages are bid up to the value of what workers produce. Thus, an increase in the minimum wage would push the wages of some workers above the value of what they are producing, and these workers would lose their jobs. On the other hand, when labor markets are not competitive, it is possible that a higher minimum wage would not reduce employment and, in some cases, would actually increase employment.

A minimum wage can increase employment if an employer is a monopsony. A monopsony is a situation where there is only one employer in a labor market. More generally, any employer who has to pay increasingly higher wages as he or she hires more workers (for example, paying $5 to hire the first worker and $6 for the second, and having to raise both of their wages to $7 to get a third) is a monopsony. Because a monopsony faces rising wage costs, the cost of each added worker includes

the worker's wage plus the dollar amount the employer has to pay in order to raise the wages of the other workers to the new wage. For example, suppose an employer employs 9 workers at $10 and must pay $11 to hire the 10th worker. The 10th worker costs $11 plus the $9 needed to raise the pay of the first 9 workers from $10 to $11. Thus, the 10th worker costs $20. If the worker produces a value of $15, the monopsony would not hire him or her. However, if there were a minimum wage of $11, the 10th worker would only cost $11 (since the wages of the first 9 workers do not have to be increased, as they are already at $11). In this case, the worker would be hired. A sufficiently high minimum wage (for example, $16) will cause this worker not to be hired and, if even higher, may cause others to lose their jobs. Over some range, a minimum wage causes a monopsony to hire more workers, but at some point, an even higher wage will cause jobs to be lost.

Research has found that restaurants have monopsony power over tipped workers. In the absence of a minimum wage, a restaurant hiring more tipped servers would find, at some point, that each tipped server earns less in tips per hour (as each will serve fewer patrons in an hour when more waiters are hired). As a result, the restaurant will have to raise the hourly cash wage to remain competitive with other employers. Therefore, a restaurant has monopsony power, and a minimum wage has the potential to increase employment of tipped servers. However, it was also found that when the minimum wage for tipped workers was increased too much, employment fell.

What do the data say about the effect of minimum wages on employment? Most studies of teenagers suggest that the minimum wage does reduce employment: every 10 percent increase in the minimum wage reduces teenage employment by 1 to 2 percent. The reason that most research on minimum wages involves teenagers is that they are the only group sizably affected by the minimum wage, which makes its effects more discernable. David Card and Alan Krueger have conducted considerable research that shows that minimum wages do not reduce employment. For example, they concluded that, when the minimum wage was increased in 1990 and 1991, states with a larger fraction of low-wage workers did not suffer a greater loss in jobs (Card and Krueger 1995). However, a study of the 1996–1997 increase in the federal minimum wage did show a greater job loss in jobs in states with larger proportions of low-wage workers (Wessels 2007). Thus, using their methodology, it appears that the minimum wage did reduce employment.

Another Card and Krueger study (1994) compared employment at fast-food restaurants in two adjoining towns—one in New Jersey, where the minimum wage was increased, and the other in Pennsylvania, where the minimum wage was not increased. They found no difference in before-and-after employment trends between the two towns and concluded the minimum wage had no effect.

Yet for the study's results to be valid, both towns must have basically the same business conditions before and after the minimum wage increase. Otherwise, it is

possible that the town with the minimum wage increase also had an improvement in business conditions (while the other town did not) that offset the negative effect of the minimum wage on employment. This is why nationwide studies usually are better sources of evidence; the year-to-year variations in local business conditions usually net out when averaged across the nation. The drawback to using nationwide studies is that the business cycle can be a potentially confounding factor. For example, the increase in the federal minimum wage in 1990 occurred during a recession, and it is possible that the negative effects of the minimum wage found then could have actually been caused by the business downturn. However, the minimum wage has been found to reduce employment in many business conditions.

Other Effects of the Minimum Wage

Minimum wages also have other effects. One major effect is that they raise the wages not only of minimum-wage workers but also of those earning more than the minimum wage. Studies have shown that a 10 percent increase in the minimum wage increases the

THE LIVING WAGE

Many cities and counties have living wages. The living wage is a minimum wage set above the federal minimum wage level and usually applies only to employers who have a contract with the city or county. It is called a living wage because it is usually set at a level that allows a full-time worker to support a family of four at the poverty line.

Because the institution of a living wage is relatively recent, it is hard to judge whether it decreases employment. The current evidence suggests that the living wage may reduce employment, but this is open to argument. There are three main reasons why one would expect living wage laws to not reduce employment. First, the very passage of these laws has shown that the cities and counties passing them are willing to absorb added cost increases. Second, the type of services cities contract for cannot be supplied by low-wage foreign or out-of-area firms. Thus, there is less competitive pressure on these firms to keep prices and, therefore, costs down. Finally, the third reason is that the living wage laws may not significantly affect the costs of doing business for many of the affected firms. For example, suppose 10 percent of a firm's costs are increased 30 percent by the living wage law; this will increase its total cost by only 3 percent.

If the living wage laws result in affected jobs paying sizably more, then it might be expected that employers over time would fill vacated jobs with better workers (who are more experienced and better educated) than the ones they currently are hiring. Employers may not explicitly set out to hire better workers, but the higher wage will attract better workers to apply, and it will be the better workers whom firms will hire. Thus, while current low-skilled workers may benefit from the law, over time, new low-skilled applicants will not. Instead, they will find fewer jobs open to them.

average wage of all teenagers around 2 percent. This estimate is probably too low; most other studies have found a larger effect.

Another effect of the minimum wage is that it makes employers cut back on other amenities (by cutting fringe benefits, tightening work rules, and reducing on-the-job training). In this way, employers partially offset the effect of higher wages on their cost. The net effect for workers is that the minimum wage may not make them as well off as the increase in wages might indicate. One piece of evidence suggesting that this is the case is the fact that the past increases in the minimum wage have reduced (or had no effect on) the fraction of teenagers who want to work (as measured by their labor force participation rate). If the minimum wage increases the expected value of seeking and finding work, then it should increase the size of the labor force—but it does not.

A common error concerning the minimum wage is the belief that an increase in the minimum wage will be offset by workers becoming more productive and that, as a result, this will keep employment from decreasing. Various reasons have been given for the minimum wage increasing productivity, including the speculation that workers value their higher-paid jobs more or, alternatively, that employers try to offset the higher wage costs. If this were true, the minimum wage would reduce employment far more than it does. For example, suppose a minimum wage increases wages 10 percent and workers become 10 percent more productive. This will offset the effect of minimum wages on cost and leave the price of products unchanged. As goods cost the same amount, employers will produce and sell the same number of goods as before. But workers are 10 percent more productive, so employers would need 10 percent fewer workers to produce the same numbers of goods as before (indeed, that is what being more productive means). In this case, a 10 percent increase in the minimum wage would lead to a 10 percent decrease in employment. This is a far greater cut in employment than most studies find.

Conclusion

It can be argued that the poor would be better off if the political energy that goes into increasing the minimum wage were used instead to develop programs, such as the earned income tax credit, that truly help the poor. The minimum wage, according to much of the research in the field, reduces employment, but not sizably. More troubling, it does not increase the number of people who want to work, which suggests that it creates some offset such that workers on the whole are not better off. Economists like to say that there is no such thing as a free lunch. The minimum wage is definitely not a free lunch. It may have benefits, but it also has significant costs.

See also **Labor, Organized; Unemployment; Social Justice (vol. 2)**

Further Reading

Andersson, Fredrik, *Moving Up or Moving Down: Who Advances in the Low-Wage Market?* New York: Russell Sage Foundation, 2005.

Card, David, and Alan Krueger, "Minimum Wages and Employment: A Case Study of the Fast Food Industry in New Jersey and Pennsylvania." *American Economic Review* 84 (1994): 772–793.

Card, David, and Alan Krueger, *Myth and Measurement: The New Economics of the Minimum Wage.* Princeton, NJ: Princeton University Press, 1995.

Ehrenreich, Barbara, *Nickel and Dimed: On (Not) Getting By in America.* New York: Henry Holt, 2002.

Neumark, David, and William L. Wascher, *Minimum Wages.* Cambridge, MA: MIT Press, 2008.

Pollin, Robert, Mark Brenner, Jeannette Wicks-Lim, and Stephanie Luce, *A Measure of Fairness: The Economics of Living Wages and Minimum Wages in the United States.* Ithaca, NY: ILR Press, 2008.

Wessels, Walter, "Does the Minimum Wage Drive Teenagers Out of the Labor Market?" *Journal of Labor Research* 26 (2005): 169–176.

Wessels, Walter, "A Reexamination of Card and Krueger's State-Level Study of the Minimum Wage." *Journal of Labor Research* 28, no. 1 (2007): 135–146.

Wilson, D. Mark, "Who Is Paid the Minimum Wage and Who Would Be Affected by a $1.50 per Hour Increase?" June 28, 2001. http://www.heritage.org/Research/Reports/2001/06/Who-is-Paid-the-Minimum-Wage

O

OIL ECONOMICS AND BUSINESS

Edward W. Erickson

This is a good-news/bad-news entry. Since the 19th century, there has been both a regular and periodic concern that fossil fuel supplies will be inadequate to support and maintain the world's energy-dependent economy and society. In the 20th century, the most prominent advocate of the theory of impending trouble was the well-respected geologist and geophysicist M. King Hubbert, who predicted in 1956 that U.S. crude oil production would peak between 1965 and 1970. U.S. crude oil production did in fact peak in 1971. Hubbert further predicted in 1974 that global crude oil production would peak in 1995. However, world oil production has not yet peaked.

In the 21st century, there continues to be widespread concern and support for Hubbert's contention that the fossil fuel era would be of very short duration. Some analysts argue that Saudi Arabian oil production may have already peaked and may now be in decline. Saudi Arabia is the largest supplier of crude oil exports to the world market. Others argue that total world oil production, if it has not already peaked, will peak in a few years.

The first piece of good news is that world oil production has not yet peaked and may continue production at current, or higher, levels in the foreseeable future—decades or more. The second piece of good news is that, even if the pessimists are correct, it is likely that there will be cost-effective fossil fuel substitutes for oil that allow continued economic growth and improvement in living standards for the population of the world. There is no question that the fossil fuel content of the geology of the Earth is finite.

What is the bad news? Just as the world is now predominantly a fossil fuel economy, the world is likely to continue to be a predominantly fossil fuel economy for at least the next several decades, if not the balance of the 21st century. And, of course, when fossil fuels are used, they emit greenhouse gases. The 1997 Kyoto Protocol amended the international treaty on climate change to assign mandatory targets for the reduction of greenhouse gas emissions, and the 2009 Copenhagen Accord raised the question of setting more ambitious targets (though little was actually agreed to). If there are adequate fossil fuel resources to maintain or increase our global fossil fuel consumption, then there will be unavoidable tension between maintaining and improving our energy-dependent standard of living for the growing population of the world and curbing greenhouse gas emissions. "Unavoidable tension" is a polite way of saying a political catfight. And this, moreover, is an international political catfight that may take decades to resolve.

The Centrality of Oil

The primary source of energy used by the world economy comes in a variety of forms: petroleum (crude oil); natural gas; coal; and hydro, geothermal, solar, wind, biomass, and nuclear energy. Electricity is a derived form of energy that can be generated by any of the primary energy sources. Many energy sources have multiple uses. For example, wind can power turbines to generate electricity or propel sailing ships. Sunlight can generate electricity photovoltaically or directly provide space heating. Natural gas can be used for space heating and cooling or to generate electricity. Coal can be used for transportation (locomotives and steamships), space heating, or electricity generation. These energy sources compete with each other in the energy market, and this competition determines which source is the most cost effective and technically efficient alternative for each specific use.

There is, however, only one energy source that broadly competes with all other energy sources in all uses. This is petroleum. The competitive centrality of petroleum, in addition to petroleum's predominance as the largest single source of energy for the world economy, is why so much attention is focused on world crude oil supplies. Because of petroleum's worldwide competitive interconnectedness to the markets for all other sources of energy, when the world oil market sneezes, each of the markets for other types of energy at least sniffles.

The Flow of Oil

The standard way that energy economists think about the amount of oil produced and consumed is in barrels per day. There is a good reason for this. Oil is always on the move. It flows in drill pipes from underground geological formations to the surface of the Earth. There it is temporarily deposited in lease tanks before beginning another journey by pipeline to a refinery. A refinery is a vast network of pipes, pressure vessels, and storage tanks through which oil flows as it is converted from crude oil to refined products such as gasoline, jet fuel, and heating oil.

OFFSHORE OIL DRILLING IN THE GULF OF MEXICO

Offshore oil production in the Gulf of Mexico began in the 1930s. In shallow water near to the shore, large wooden platforms were built on wooden pilings and drilling rigs and production facilities operated from these platforms. The platforms were connected to each other and to the shore by a network of docks and walkways.

After World War II, steel platform technology began to advance. This was complemented by advances in drill ship and drilling barge technologies and advances in undersea pipeline-laying techniques and technology. But compared to current industry offshore operations, exploration and production were still limited to relatively shallow water. Steel platforms could be set in 100 feet of water. Using directional drilling, drill bits could be turned (or "whipstocked") so that wells could be completed in water that was 300 feet deep. A deep well was a completion (as it is called) into a reservoir that lay 10,000 feet under the floor of the gulf.

In 2006, the so-called Jack field in the deep waters of the central Gulf of Mexico was flow tested. The discovery well was drilled in 6,000 feet of water. The producing formation lies 25,000 feet under the floor of the Gulf of Mexico. The Jack field is part of a larger geologic formation that is estimated to contain 9–15 billion barrels of oil, a 50 percent increase in U.S. proved reserves. The seismic and geophysical technologies that allowed identification of the Jack field and the drilling and production technologies that allow development of the field are major advances. And in this sense, new technologies create new resources.

Now, of course, in the wake of the 2010 BP–Deepwater Horizon oil spill in a nearby region of the gulf, even greater technological improvements will be needed. Deepwater Horizon was a giant rig capable of operating in waters up to 8,000 feet deep and drilling to a depth of 30,000 feet. It had a massive blowout preventer that was supposed to have guarded against just the kind of uncontrolled gushing of crude that occurred after the rig exploded and collapsed into the sea. Shortly after the accident, President Barack Obama, who weeks before had called for expanding offshore oil and gas drilling, ordered a hold on new drilling and stepped-up safety inspections for existing wells.

Refined products leave the refinery and move to market through pipelines. Sometimes crude oil and refined products also move great distances around the world by ocean tanker. Since time is money, there are large economic incentives to minimize the amount of time that oil spends in storage tanks along its route from geological formation to refined-product customer.

The United States uses about 20 million barrels of oil a day. How much is that? An oil barrel is 42 gallons, so 20 million barrels a day equals 840 million gallons per day. And how much is this? Visualize a red one-gallon gas can used to fill a lawn mower. Start at Miami and line up 42 of these one-gallon cans across the northbound lane of the interstate highway from Miami to Chicago. Repeat that lineup of cans across the

interstate all the way to Chicago until the northbound lane is *full of gas cans*. That is 840 million gallons of oil.

Now, blink your eyes, and all the oil cans disappear (i.e., the oil is consumed). Tomorrow, blink your eyes again and all 840 million oil cans—full of oil—reappear. The vast production network of wells, pipelines, tankers, and refineries replaces yesterday's consumption with today's new production.

This is a logistic miracle. It happens every day, day in and day out, 365 days a year. It happens not only in the United States, but all over the world. And world production and consumption is 85 million barrels of oil a day.

The planning and implementation imperatives that this daily feat of logistics imposes upon the oil industry are the practical reasons why industry operators commonly measure production and consumption in millions of barrels a day. Oil, of course, is not the only source of energy. So it is useful to have a measure of energy that allows comparison across the various types of energy. That measure is the British thermal unit, or Btu. Production and consumption statistics are also kept on an annual basis. But beneath the annual numbers, energy is moving in a ceaseless hourly and daily flow.

The Patterns of Energy Consumption

The world used 472 quadrillion Btus of energy in 2006 (and an estimated 508 quadrillion in 2010). A Btu, or British thermal unit, is the heat equal to 1/180 of the heat required to raise the temperature of one pound of water from a temperature of 32 degrees Fahrenheit to 212 degrees Fahrenheit at a constant pressure of one atmosphere. An atmosphere is the air pressure at sea level. A quadrillion is a million billion, or 10^{15}. This is a tremendous amount of energy. The word used to mean a quadrillion Btus is *quad.*

Table 1 shows the types and amounts of each type of energy consumed in the United States in 1985 and in 2009, and the increases (or decreases) in energy consumption over the 1985–2009 interval. Table 2 shows the relative percentage shares of each type of energy for 1985 and 2009 and the 1985–2009 increases (or decreases).

Between 1985 and 2009, U.S. energy consumption increased 27.5 percent, from 76.5 quads to 94.6 quads (Table 1). Fossil fuels supplied 66.1 percent of U.S. energy consumption in 1985 and 78.4 percent in 2009. Fossil fuels also supplied 68.0 percent of the 18.1 quad increase in U.S. energy consumption over the 1985–2009 interval (Tables 1 and 2). Between 1985 and 2009, the total renewable energy consumption in the United States increased 1.6 quads, or 25.8 percent. This net increase reflects a 2.0 quad increase for the combination of biomass, geothermal, solar, and wind forms that is partially offset by a 0.3 quad decrease in U.S. hydropower. In general, although the use of hydropower increased on a worldwide basis and decreased in the United States, the pattern of U.S. energy consumption is similar to the pattern for the world. Over the quarter century from 1985 to 2009, both the United States and the world increased total energy consumption. For both the United States and the world, by far the principal source of total energy

TABLE 1. U.S. Consumption of Energy by Type of Energy (1985 and 2009)

	Quadrillion Btus Consumed			
Type of Energy	1985	2009	Increase	Percent Increase
Petroleum	30.9	35.3	4.4	14.2
Natural gas	17.7	23.4	5.7	32.2
Coal	17.5	19.8	2.3	13.1
Total fossil	**66.1**	**78.4**	**12.3**	**18.6**
Hydro	3.0	2.7	–0.3	–10.0
Biomass	3.0	4.0	1.0	33.3
Geothermal	0.2	0.4	0.2	100.0
Solar	NA	0.1	0.1	
Wind	NA	0.7	0.7	
Total renewable	**6.2**	**7.8**	**1.6**	**25.8**
Nuclear	4.1	8.3	4.2	102.4
U.S. total	**76.5**	**94.6**	**18.1**	**23.7**

Note: Due to rounding, totals may not add up.
Source: U.S. Energy Administration, *Monthly Energy Review* (April 2010).

consumption was fossil fuel. In relative terms, fossil fuels lost a few percentage points of market share. But for both the United States and the world, increased fossil fuel consumption accounted for roughly 70 percent of the total increase in energy consumption. Use of nuclear power increased in both absolute and relative terms in the United States and worldwide. With the exception of hydropower outside the United States, renewable sources made relatively modest contributions to both absolute and relative energy consumption in the United States and on a worldwide basis.

Oil Production: The Intensive Margin

Economists have long considered two general approaches to increasing or maintaining the production of output: the intensive margin of production and the extensive margin of production. Think of a tomato farmer. If the farmer wants to increase production, one way to accomplish this is by getting more output from her existing fields. This can be achieved by installing irrigation, applying fertilizer, hiring more labor to pick and cultivate more carefully, applying pesticides and herbicides, and the like. These production enhancement techniques are all examples of expanding output at the internal margin of production.

There is also an external margin of production—an alternative way the farmer could expand production. She could plant, cultivate, and harvest additional fields of tomatoes. She could manage the new fields in exactly the same way that she managed her original

TABLE 2. Relative Contributions of Various Types of Energy to Total U.S. Energy Consumption (1985 and 2009)

	Percent Contribution to Total U.S. Consumption		
Type of Energy	1985	2009	1985 to 2009 Increase
Petroleum	40.4	37.3	24.3
Natural gas	23.1	24.7	31.5
Coal	22.9	20.9	12.7
Total fossil	**86.4**	**82.9**	**68.0**
Hydro	3.9	2.9	–1.7
Biomass	3.9	4.2	5.5
Geothermal	0.3	0.4	1.1
Solar		0.1	0.6
Wind		0.7	3.9
Total renewable	**8.1**	**8.2**	**8.8**
Nuclear	5.4	8.8	23.2
U.S. total	**100.0**	**100.0**	**100.0**

Note: Due to rounding, totals may not add up.
Source: U.S. Energy Information Administration, *Monthly Energy Review* (April 2010).

fields. If she were to follow this approach, the farmer would be expanding output at the external margin of production. Not surprisingly, if there are economic incentives to expand the output of some commodity, there are production responses at both the internal and external margins of production.

Terms of art in the oil and gas industry are *resource* and *proved reserves.* Resources exist in nature. Proved reserves are an artifact of humans. Resources are the total global endowment of fossil fuels that nature has bestowed upon us. Resources exist, whether they have been discovered or not. Proved reserves are the portion of a discovered resource that is recoverable (or producible) under existing technological and economic conditions.

To understand how the concept of the internal margin applies to oil production, it is necessary to review a little petroleum geology. Oil does not occur in huge underground lakes or pools. What is often called a pool of oil actually appears to the naked eye to be solid rock. The oil is contained in the microscopic pore spaces between the tiny grains of sand that make up the rock. Porous rock that contains oil is called reservoir rock. The reservoir rock of the Prudhoe Bay oil field on the North Slope of Alaska could be cut into thin slabs, polished up, and used as the facing on a bank building. Passers-by would be none the wiser.

Geologists speak of source rock, reservoir rock, and caprock. Source rock is the progenitor of fossil fuels. Eons ago in geologic time, plant and animal life lived and died and were deposited as organic material in sedimentary basins. The Earth's crust moved and buckled and bent and folded over upon itself. This process rolled organic sedimentary material deep underground, where, over the course of geologic time, heat and pressure converted the organic sediments to fossil fuels—petroleum, natural gas, and coal.

Fossil fuels are solar fuels. The energy they contain derives from the energy of the sun. But the production process that created them is much more roundabout—millions of years more roundabout—than the process that uses the energy of the sun to warm a solar water heater.

Oil formed in the source rock is pushed by underground pressures through various strata of permeable rock until it is trapped against a layer of impermeable rock—the caprock. The source of the pressure pushing the oil into the ultimate strata of reservoir rock is often water driven by a subterranean aquifer. If no caprock stops its pressure-driven journey, the oil escapes to the surface of the Earth—on land or under the oceans. These are natural oil spills. One of the largest known deposits of oil in the world—the Athabasca Tar Sands in Alberta, Canada—is such a natural oil spill.

Nature abhors a vacuum. Nature also abhors a partial vacuum. Oil in a strata of reservoir rock is under great pressure, trapped between a water drive and the impermeable caprock. It requires tremendous pressure to force oil to flow through solid rock from the source rock to the caprock. When a well pierces the caprock and enters the reservoir rock, a partial vacuum is created. The great pressure differential between atmospheric pressure at the surface of the Earth and the underground reservoir pressure causes the oil to flow to the well bore and then up through the well casing to the wellhead at the surface.

In the 19th century and the first half of the 20th century, successful oil wells were often allowed to erupt as gushers and temporarily spew a fountain of oil from the drilling derrick. This is no longer the case. Reservoir pressure is precious and managed carefully. As natural reservoir pressure dissipates, less and less oil is forced through the reservoir rock to the well bore, and daily production declines.

Not all the oil in place in a reservoir is produced. In the earliest days of the oil industry after Col. Edwin Drake drilled his discovery well in 1859 near Titusville, Pennsylvania, as little as 10 percent of the oil in place was produced before the natural reservoir pressure was exhausted and primary oil production ceased to flow. To offset the loss of production as primary output slowed, secondary production techniques were developed.

There are many different kinds of secondary production technology. The classic secondary production technique is the walking beam pump, which resembles a mechanized sawhorse bobbing up and down. Others include drilling injection wells and pumping water, natural gas, or carbon dioxide into the reservoir to maintain pressure. Secondary recovery shades into tertiary recovery, such as injecting steam to make heavy oil flow

more freely or injecting surfactant detergents to maintain reservoir pressure and to wash oil out of tight pore spaces and help it to flow to the well bore. From the inception of production, modern reservoir engineering now uses whatever techniques are cost effective to maintain reservoir pressure, improve flow, and increase the ultimate recovery of oil in place. The result has been a significant increase in the percent of oil in place that is recovered through production. In the 20th century, 10 percent recovery became 30 percent recovery. Now it is often possible to achieve 50 percent or higher ultimate recovery of the oil in place. Higher prices for oil make application of expensive enhanced recovery technologies more cost effective and also encourage the development of new technologies.

A large fraction of the oil discovered from 1859 to the present remains unrecovered and in place in known reservoirs. This includes recent discoveries of shale oil (i.e., oil embedded in shale and only extractable by new technologies that force it out using pressure). At historical and current prices with historical and current technologies, it has not been cost effective to produce it. Most of the oil in place that has not qualified to be designated as proved reserves will likely never be recovered and produced. But if petroleum becomes more scarce relative to our desire to benefit from its use, its price (adjusted for inflation) will rise, perhaps dramatically. If, or when, that occurs, a variety of responses, interactions, and consequences will ensue. One of these responses will be at the intensive margins of production. New discoveries will be developed more intensively, and old oil fields will be intensively reworked.

Fossil Fuel Production: The Extensive Margin

The fossil fuels are all hydrocarbons. Petroleum is the most widely used fossil fuel with the largest market share of any energy source, because transportation is such an important use. Liquid transportation fuels—for example, gasoline and jet fuel diesel—are easier, more convenient, and less costly to store, transport, distribute, and use than solid or gaseous fuels. However, the resource base for petroleum is smaller than that for coal and natural gas.

Engineers and scientists can convert the hydrocarbons in coal into liquid fuels. The Fischer-Tropsche process (named for two German chemists) is the best-known technology. It was used by Germany in World War II and by South Africa during the apartheid embargo. A variation of the backend of the Fischer-Tropsch process can be used to convert natural gas to liquid fuel. Exxon-Mobil is building a big gas-to-liquids (GTL) plant in West Africa. Qatar is building a very large GTL plant in the Persian Gulf to facilitate the marketing of its substantial natural gas reserves. The output of a GTL plant is equivalent to an environmentally friendly diesel fuel. We are on the cusp of extending the commercial production of liquid hydrocarbon fuels to natural gas. Higher oil prices will extend the commercial horizon to coal-based liquid hydrocarbon fuels.

The recent exploration activity focused upon the Lower Tertiary geologic formation in the deepwater Gulf of Mexico is another illustration of the relevance of the extensive margin. Two-thirds of the surface of the Earth is covered by water.

There has been considerable exploration for and production of oil and natural gas on the great deltas of the shallow near-shore outer continental shelf—the North Sea, the Bight of Benin, the Gulf of Mexico, the South China Sea, and so on. Exploration and production in water depths up to 10,000 feet and at geologic horizons 25,000 feet beneath the ocean floor are now possible.

CAN ETHANOL REPLACE GASOLINE?

Ethanol is a type of ethyl alcohol. Ethanol has been used as an additive for gasoline to oxygenate the fuel in order to reduce emissions and pollution. For this purpose, a common blend of ethanol and ordinary gasoline is a fuel called E15. E15 is 85 percent petroleum-based gasoline and 15 percent ethanol. A much more ethanol-intensive blend is E85. E85 is 85 percent ethanol and 15 percent gasoline.

The U.S. automobile industry produces many cars that are ethanol capable and can run on either 100 percent gasoline or fuels such as E15 and E85. E15 ethanol is used as a replacement for the chemical methyl tertiary butyl ether (MTBE) for purposes of oxygenation. E85 ethanol is used primarily as a replacement for gasoline itself. Ethanol contains about 80 percent as many Btus of energy per gallon as does gasoline.

In the United States, most ethanol is made from corn. There are biofuels other than ethanol and biological feedstocks other than corn. The cultivation of alternative biofuel feedstocks—switchgrass, for example—is apt to be less energy intensive than the cultivation of corn. But corn is currently a major U.S. crop. The conversion of corn to ethanol is a market-tested technology. So, for illustrative purposes, the focus here is upon corn-based ethanol.

The U.S. corn harvest averages about 11 billion bushels of corn per year. The principal use of corn is for animal feed. Between 1.5 and 4 billion bushels of corn are exported for this purpose. There are about 81 million acres of cropland planted for U.S. corn production. For the last decade, the average price of corn has been about $2.00 per bushel, although in 2006 corn was $2.50 per bushel. A bushel of corn is 60 pounds of corn.

The United States uses 144 billion gallons of gasoline per year. The conversion process of corn into ethanol yields slightly more than 2.7 gallons of ethanol per bushel of corn. If the entire 11 billion–bushel U.S. corn crop were converted into ethanol, about 20 percent of U.S. gasoline use could be replaced by ethanol.

Such a program would have many major consequences. Consider just two. First, U.S. demand for imported oil would be reduced. Second, the U.S. price of corn would increase dramatically. We would pay for the program at both the gas pump and the grocery store. There is a place for ethanol, but that is likely to be a small market as a substitute for MTBE rather than a broad market as a major replacement for gasoline. Furthermore, early predictions regarding the value of ethanol as a substitute have been revised downward.

Vast new areas about which we now know relatively little have become accessible. Attractive prospects will not be limited to just the near-to-shore relatively shallow waters bordering the continents. New deepwater geologic horizons lie before us. A great adventure will continue. If the last 50 years of history in the Gulf of Mexico tell us anything, the technological limits will not long remain at 10,000 feet of water depth and 25,000 feet beneath the ocean floor—that is, as long as adequate environmental safety measures can be put in place. For liquid hydrocarbon fuels, Hubbert's peak lies before us—perhaps a long way before us.

Price Volatility

Following World War II, oil prices were quite stable for a number of reasons. Prices spiked in the early middle 1970s following the Arab oil embargo. Prices spiked again at the end of the 1970s and in the early 1980s, coincident with the Iranian revolution. In the early 1990s, the first Gulf War was accompanied by another spike in prices. In 2006, due to supply dislocations in Alaska, Venezuela, Nigeria, and Iraq, prices spiked again and reached nearly $80 a barrel. We can learn a number of things from these price spikes.

First, short-term demand for and supply of oil are quite inflexible. Small dislocations on either side of the market can cause big swings in price. Second, volatility is a two-way street. What goes up often comes down. The price bust in the mid-1980s and the soft markets of the late 1990s and early 2000s illustrate such turnarounds. The big downward slide of prices from the 2006 highs punctuates the message. Third, economic recessions are often attributed to oil price spikes, but we should be cautious about such suggestions. In every instance, oil price spikes were accompanied by restrictive monetary policies applied by the sometimes draconian U.S. Federal Reserve restrictions. Fourth, there is upward pressure upon prices due to increasing demand for energy from the growing economies of India and China. This is good news. The world is a much better place with billions of Indians and Chinese participating in dynamic economies that are demanding more energy than it would be were these countries failed societies with stagnant demands.

There is a further general lesson in our experience of price volatility. As prices fluctuate, we adapt. The original Honda Civic and the SUV are classic examples of our response to higher and lower prices. In an important sense, $75 oil and $3 gasoline are a bargain. In terms of what oil (and, potentially, other liquid hydrocarbon fuels) does for us, and what we would have to give up without it, there are no readily available cost-effective substitutes.

In Europe, high fuel taxes cause gasoline prices to be more than $5 a gallon. But even at these prices, motor vehicle use in London has to be restricted in order to reduce congestion. As a hypothetical example, consider the effects of $5-a-gallon gasoline in the United States. If gasoline cost $5 a gallon because of long-term higher crude oil prices, this would be equivalent to a price of $125 a barrel for crude oil. Such prices would cause much pain, but after adjusting and adapting, it is unlikely the economy would

suffer long-term collapse. Supply-side initiatives at all dimensions of the intensive and extensive margins, however, would be undertaken with incredible creativity and vigor. Demand-side responses would also be significant. In the short run, high-tech modern versions of the original Honda Civic would be widely adopted. In the long run, land-use patterns and building design and construction would change.

Conclusion

Fossil fuels are the workhorse of the world energy economy. Nuclear power is making a growing contribution to electricity generation. Outside the United States, new hydro facilities have also contributed to increased energy consumption. Nonhydro renewable energy use has grown rapidly from a small base. But these nonhydro renewable sources make a very modest contribution toward meeting increased energy demands or total energy use. It is likely that supplies of fossil fuel resources will be ample to meet growing energy demands for the foreseeable future.

Consumption of fossil fuels generates carbon dioxide. Many environmentalists believe that the greenhouse effect of increased atmospheric concentrations of carbon dioxide is the principal cause of global warming. In *The Skeptical Environmentalist,* Bjorn Lomborg (2001) expresses reservations about the extent of environmental degradation due to human activities and the link between carbon dioxide concentrations and global warming. Nevertheless, serious people consider the links between human activity, fossil fuel use, increased carbon dioxide concentrations, and global warming to be very strong and regard the situation to be very serious. Moreover, in light of the 2010 BP–Deepwater Horizon disaster and other such human-caused events, the problem of preventing oil spills and containing environmental damage associated with spills is regarded as equally serious.

Modern societies and the global economy are built on fossil fuel use. There are now no cost-effective substitutes for fossil fuels. Reducing carbon dioxide emissions significantly will require dramatic changes in the way we organize our activities and live our lives. Many people, especially skeptics, will not make these sacrifices happily. If the skeptics are correct, we will incur great costs for few, if any, benefits. The resolution of these questions will become an increasingly important item on the global political agenda.

See also **Free Trade; Supply Chain Security and Terrorism; Biodiesel (vol. 4); Fossil Fuels (vol. 4); Nuclear Energy (vol. 4); Oil Drilling and the Environment (vol. 4); Solar Energy (vol. 4); Wind Energy (vol. 4)**

Further Reading

Downey, Morgan Patrick, *Oil 101.* New York: Wooden Table Press, 2009.

Grace, Robert, *Oil: An Overview of the Petroleum Industry.* Houston: Gulf Publishing, 2007.

Juhasz, Antonia, *The Tyranny of Oil: The World's Most Powerful Industry—And What We Must Do to Stop It.* New York: Harper, 2009.

Klare, Michael T., *Blood and Oil: The Dangers and Consequences of America's Growing Dependency on Imported Petroleum.* New York: Henry Holt, 2005.

Lomborg, Bjorn, *The Skeptical Environmentalist.* New York: Cambridge University Press, 2001.

Paul, William Henry, *Future Energy: How the New Oil Industry Will Change People, Politics, and Portfolios.* New York: John Wiley, 2007.

Priest, Tyler, *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America.* College Station: Texas A&M University Press, 2007.

OUTSOURCING AND OFFSHORING

John Silvia

Behaviors and perceptions sometimes disconnect. This is evident when the words *outsourcing* and *offshoring*—which mean the placement of U.S. jobs in foreign countries—raise the hackles of the public that appears to benefit from the lower consumer prices and mortgage rates occurring as a result of globalization. Consumers economize by buying the least expensive item that they believe meets their needs. Store owners recognize that and ask their suppliers to provide those items at the lowest cost. The wholesalers, in turn, seek out the least expensive producers for the given quality of the good in question. Since the 1960s, the least expensive producer has increasingly been overseas, and U.S. manufacturers have moved abroad. Meanwhile, foreign investors have supplied capital to U.S. capital markets and have helped keep interest rates lower than otherwise possible.

So how does the same globalization phenomenon generate economywide benefits, yet there are still winners and losers on an individual level? How do changes in the domestic economy interact with the patterns of globalization? Finally, why is there a disconnect between economic benefits and public perceptions?

Macro Benefits and Micro Winners and Losers in a Dynamic Economy

Economies grow and change over time. This growth increases the standard of living for a society, but not all participants benefit equally, and there are often losers in the process, as owners of once-valuable resources (e.g., real estate in the old ghost towns of the West and riverfront mills in the industrial Northeast) find that the demand for those resources has declined. Yet the globalization of the U.S. economy has been a long-term trend, as exhibited in Figure 1, which shows combined exports and imports as a percentage of annual national income. Today this measure of globalization stands near 20 percent of the U.S. economy.

The theme underlying any effective Western economic system is that each consumer acts in her or his own interest to minimize costs, while each producer seeks to maximize profit. Consumers maximize their welfare subject to income limitations. Producers, meanwhile, act to offer the least expensive product that will meet the customer's

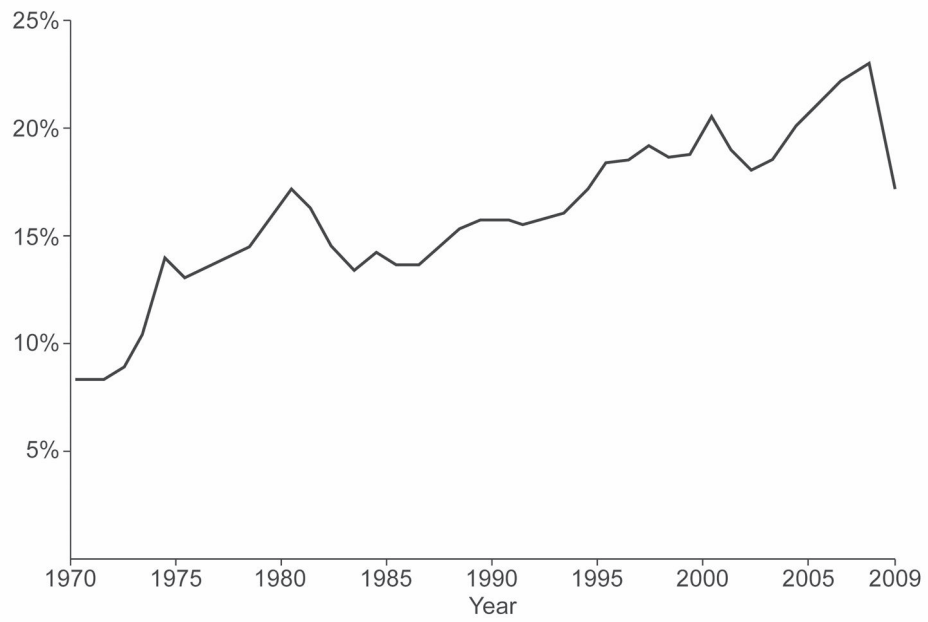


Figure 1. Globalization: U.S. Exports and Imports as a Percentage of Nominal GDP (U.S. Department of Commerce)

needs. The boom in discount and Internet shopping over the past 10 years reflects the consumer's desire to minimize expense of dollars, time, or both. In response, producers have sought to minimize costs in order to maximize profit and thereby have an incentive to seek international sourcing of goods and services that many in the popular press call outsourcing.

Global Labor Market

Trade allows for the division of labor across countries. This division of labor in turn allows for economies of scale and scope and the development of specialized skills. Specialization encourages innovation and promotes dynamism. Economies of scale, scope, and specialization allow production to be more efficient and therefore lower cost. Historically, we have seen the migration of production in the United States in agriculture and textile production. The opening of the Midwest made New England farms high cost and led to a shift of major agricultural production from the Northeast to the Midwest. As for textile production, there has been a migration from England to New England, then to the Southeast, and then on to Mexico and China, and now to Vietnam. Over time, this industry has moved to locations where manufacturers can economize on their biggest cost—labor.

Geographical migration of production has benefited consumers by providing a greater supply of goods and services at a lower price. The lower prices mean that consumers

have more real income to be spent elsewhere. In turn, consumers' standard of living has increased.

The shift in the locus of manufacturing production also means that there are gainers and losers in jobs and land values over time. Southern cities and low-skilled workers have benefited, while New England cities and higher-wage union workers have been the losers. The process of production relocation generally benefits society at large, as less expensive goods are produced for all consumers in the nation, while there is also a regional redistribution of jobs and wealth within the economy.

In recent years, there has been a global redistribution of production, with lower-wage manufacturing jobs in textiles and apparel relocating to Asia. Meanwhile, states like North Carolina increased their exports of high-valued manufactures such as chemicals and electronic products. Today, these two sectors, along with vehicles and machinery, comprise the state's top four export industries. The globalization of product markets has led to an expansion of world trade. Durable goods manufacturers, such as construction, farm, and industrial machinery, have seen a global increase in demand for their products. Yet as production has grown, there are many physical as well as practical barriers to labor mobility. Therefore, manufacturers that wish to be close to their customers are finding that they cannot source all production from their U.S. base and, as a result, must outsource production to other countries to remain competitive.

Trade does lead to both losses and gains of jobs—both directly in the affected community and indirectly in the surrounding community. As discussed below, policies encouraging the retraining of workers are more likely to be successful than those increasing the prices to consumers. On net, however, lower consumer prices provided by more efficient global production result in an increase in household purchasing power and a broader variety of goods and services for consumers in general. It is helpful to recall that the United States is the world's largest exporter as well as a major beneficiary of foreign direct investment, which provides jobs in this country. This inflow of foreign capital is seen in the form of a Japanese aircraft manufacturer in North Carolina and a German auto manufacturer in South Carolina.

Unfortunately, those who lose jobs due to trade are not necessarily the same people who get jobs created by trade. Short-term adjustments are painful and represent economic and social challenges. However, our focus should be on the worker, not the job.

Overall, trade has a small net effect on employment, and this trade effect on employment is overwhelmed by the normal massive turnover in the labor market (see Figure 2). Rather than trade, it is population, education and training, labor force participation, institutions, and flexibility of the labor force that determine long-term employment growth. Labor markets evolve over time, and trade is just one of many influences. We do know that trade often leads to structural change in the labor markets with consequential effects on the mix of jobs across industries, the skill levels required, and the ultimate

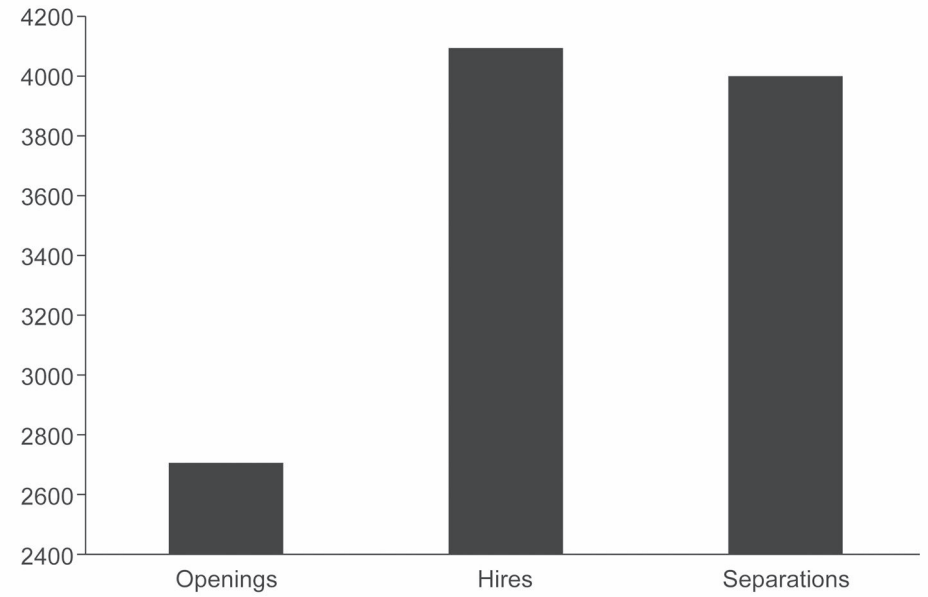


Figure 2. Job Market Dynamics, March 2010 (thousands of jobs) (U.S. Department of Commerce)

locations of job growth. For example, in recent years, lower transaction costs and improvements in international communications have led to a rising global demand for computerization and digitalization of business services, which has boosted the fortunes of U.S.-based software and hardware firms.

Meanwhile, the customer service of many of these software and hardware products and services has increased the global demand for educated English-speaking workers abroad in places such as Ireland and India. This demand for foreign workers is driven by the consumer who wants 24-hour service at the touch of a button. Therefore, companies are more likely to meet that demand at lower wages and benefit costs by hiring first-shift workers in India or Ireland than second- and third-shift workers in the United States.

In contrast, attempts to manipulate the economic theme of markets by tariffs, quotas, or labor regulations may temporarily slow job loss, but at the cost of higher prices to consumers and a misallocation of resources toward inefficient production in the rest of society. In the past, this inefficient production has been seen in subsidies to steel and textile industries and in the tariffs imposed in the 19th century to protect inefficient agriculture. In the end, the steel and textile mills still closed, and many Eastern and Southern farms became suburbs. Government interference in the economic process only increased short-term costs to the rest of the economy through higher prices. Moreover, over the long term, government interference frequently prevented the proper reallocation of resources to more productive uses. Protectionism on trade provoked retaliation

from foreign governments and a retreat from competition. As a result, protectionism leads to bloated, inefficient industries that decrease productivity and engender a lower standard of living.

Insourcing Services

Balanced discussions on trade issues are often interrupted by emotional outbursts or political grandstanding. While some manufacturing jobs are disappearing, many higher-paid service positions are being created here as foreigners increase their demand for U.S.-based services. These high-value services provided to users abroad include legal, financial, engineering, architectural, and software development services. This insourcing of professional services to the United States generates a surplus in the service component of our balance of payments accounts. The economic market-based system provides a wider array of goods and services at a lower cost than the alternatives. Greater global competition provides such benefits to society overall. There are costs of globalization that should be addressed, but by means other than preventing trade.

Global Capital Markets: Inflow of Capital to the United States

Another variation on the theme is the pattern of global capital (financial) flows and the globalization of capital markets. In contrast to labor, capital crosses borders fairly easily. In sympathy with labor, the return of capital provides an incentive to allocate capital to its best use. U.S. consumers benefit from an inflow of capital that lowers the price of credit interest rates—relative to what they would be otherwise (this reduces the interest rates on home mortgages, for example).

In addition, global capital markets lead to the development of new financial instruments that provide greater liquidity to international investors. We see this in the development of instruments such as mortgage-backed and asset-backed securities. Globalization of product markets has meant the introduction of new brands and products from foreign countries into the U.S. consumer market in particular. With capital markets, globalization has meant that U.S. financial assets such as mortgage-backed securities are now available for sale across the globe, while foreign investors with excess cash can now direct that cash toward U.S. markets.

Globalization of products leads to an expansion of world trade. The globalization of capital markets is also leading to an expansion of financial markets. For the United States, particularly in nonrecessionary times, this means a broader demand for mortgages, car loans, and business credit, which thereby effectively lowers interest rates for the U.S. consumer. In this case, the consumer comes out the winner from globalization. Consumers find that credit is more readily available at lower interest rates.

Foreign investors benefit by purchasing U.S. financial assets that are perceived to offer higher returns and lower risks than many foreign assets. This is particularly true when you view the benchmark interest rates between countries (Figure 3). Prior to the

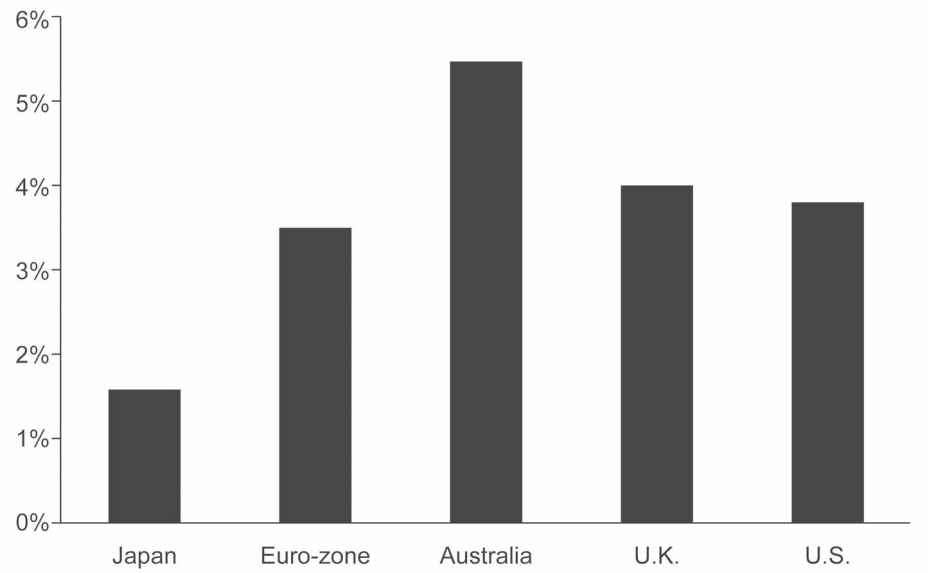


Figure 3. 10-year Government Bond Rates (Q1 2010) (Federal Reserve System)

economic crisis of 2008–2009, which hit the U.S. financial sector particularly hard, the United States led the pack, rating above 5 percent in the years immediately preceding the crisis.

Public policy in the United States has promoted these capital flows by reducing taxes on dividend and capital gains, while also lowering barriers to cross-border investment by foreign investors. This has helped promote capital flows into the United States, even while other nations limit capital flows into or out of their own nations.

Just as trade alters the global distribution of production, capital flows alter the global distribution of financial investment. Over recent years, with the exception of the 2008–2009 economic crisis, the United States has experienced growth of financial instruments and market values. Therefore, the United States benefits from the globalization of financial markets. Global savings migrate to higher return on U.S. investments (Figure 4) and thereby raise output and incomes.

What Should Be Done about Globalization?

Globalization is a product of economic incentives, not the result of some great conspiracy. Households have a limited budget and attempt to save money when they shop. Producers attempt to meet consumer demands by supplying products at a price that meets their budget. Meanwhile, many U.S. firms cannot meet their global demand by production solely in the United States and thereby locate production facilities near their customers. On the financial side, the globalization of capital markets has led to an increase in financial flows to the United States and has thereby increased the

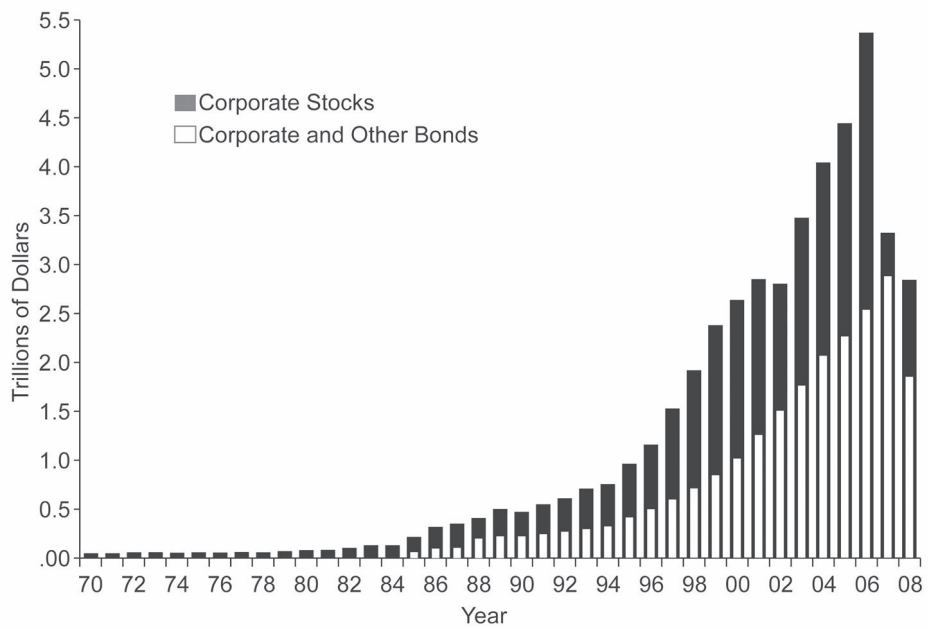


Figure 4. U.S. Securities Held Abroad (Bureau of Economic Analysis)

availability of credit and lowered interest rates. Lower rates mean that more families are able to purchase homes and businesses can finance expansion. This process is unlikely to stop.

Policymakers and voters need to recognize the dislocation costs associated with the global reallocation of production and financial flows along with the benefits that derive from such reallocation. For U.S. workers, the cost disincentives of retaining labor in many facilities in the United States may be too large to retain the old jobs in the old facilities. This may be particularly true for labor-intensive manufacturing and service jobs that require low- or semiskilled workers. In U.S. history, we have seen the migration of jobs before, from the agricultural work forces in rural areas to the manufacturing facilities of the pre–World War II era. Technological and communication changes have made many low-skilled jobs obsolete and therefore not viable economically over the long run. Certainly many workers can no longer build careers upon these jobs. Recall that consumer preferences have also shifted, with more consumer dollars going toward services—for example, eating out as opposed to buying groceries at the store to prepare all the household's meals.

While jobs may go, workers remain, and this should be our focus. Public and private programs need to be directed at worker retraining—not factory retention—in cases where the economics are clear. Labor markets are becoming increasingly flexible so that jobs are more likely to come and go, but the workers remain. Public policy is better served by the improvement of the skills of workers rather than the preservation of

specific jobs. Many states have seen the emergence of programs at community colleges with a dedicated focus on worker retraining. Of course, it is incumbent upon the worker to recognize that there is a responsibility to develop those skills and to be willing to move or change jobs more in the future than was necessary in the past.

As for manufacturing, it is important to note that many public policy decisions are aimed at discouraging production in the United States. Whatever their intentions may be, many communities simply do not want a factory in their backyard. As a result, firms are outsourcing production abroad simply because they cannot produce the gasoline, plastics, rubber, metals, textiles, and the like in this country.

On the other hand, large capital inflows into the United States also offer a solution by which incentives can be directed to foreign firms to allocate capital to areas where there is a viable workforce. We have seen this in many states where incentives are offered to locate firms in certain communities.

Offshoring creates value for the U.S. economy by passing on the efficiency that results in lower costs of goods and services to the U.S. consumer. This consumer then takes the extra money saved at the store and spends it elsewhere. U.S. companies benefit by being able to meet consumer demand by supplying the goods or services at a lower cost. Economic resources can be used then for more value-added products and services. Redeployed labor and capital to other manufacturing and service-sector activities will be more productive and have a longer economic life than those production activities and jobs in declining industries. U.S. workers and consumers benefit from specialization. Final assembly can often occur in the United States, while component production takes place around the globe. Production of goods and services is not carried on for its own sake but is undertaken to serve the demands of the consumer. Therefore, the value of any product is determined by consumers and then works its way down into the factors of production. It is impossible to governmentally control trade and consumer choice without distorting economic activity.

When a less costly way to make a good is discovered, the value of all factors used in making that good also changes. The national standard of living cannot rise when states attempt to force up the price of some factors so that the owners of those factors used in production gain an artificial advantage that results in the inefficient allocation of scarce resources in the economy. Globalization reflects the demands of the consumer. Attempts to alter that trend will only diminish the welfare of the average consumer.

See also **Foreign Direct Investment; Free Trade; Globalization**

Further Reading

Burkholder, Nicholas C., *Outsourcing: The Definitive View, Applications and Implications.* Hoboken, NJ: John Wiley, 2006.

Feenstra, Robert C., *Offshoring in the Global Economy: Microeconomic Structures and Macroeconomic Implications.* Cambridge, MA: MIT Press, 2010.

Freeman, Jodi, and Martha Minnow, *Government by Contract: Outsourcing and American Democracy.* Cambridge, MA: Harvard University Press, 2009.

Mol, Michael, *Outsourcing: Design, Process and Performance.* New York: Cambridge University Press, 2007.

Oshri, Ilan, Julia Kotlarsky, and Leslie P. Willcocks, *The Handbook of Global Outsourcing and Offshoring.* New York: Palgrave Macmillan, 2009.

P

PENSIONS

Jeanne M. Hogarth and Michael Shally-Jensen

A pension is a regular payment given to retired employees. Pensions are only one part of a retiree's income, however. Other income sources include Social Security, income from personal retirement savings, and earnings. Many older people continue to work during retirement, especially in the early years of retirement. So consumers planning for retirement need to think about all four sources of income.

Pension benefits are usually paid monthly. People use the terms *pension plans* and *retirement plans* to mean essentially the same thing—the term *pension plan* is used here. Pension plans are divided into two broad types: defined benefit and defined contribution plans.

According to a study by the Employee Benefits Research Institute, in 2008, 67 percent of workers age 16 and over worked for an employer that sponsored a retirement or pension plan. Of these, about half (51 percent) participated in their employer's retirement plan. Most (55 percent) were in a defined contribution plan; 33 percent were in a defined benefit plan, and about 10 percent were in both defined contribution and defined benefit plans. In addition, more than half of all workers (55 percent) had either a pension plan or other retirement savings in their own individual retirement account (IRA) or Keogh plans. Data from the Federal Reserve Board's 2007 Survey of Consumer Finances show that 53 percent of workers and retirees have a pension or retirement savings in an IRA or Keogh.

Defined Benefit Plans

Defined benefit plans are an older form of pension plans. Defined benefit plans define the amount of the pension benefit that will be paid to employees at retirement, and then the employer sets aside funds to pay that future benefit.

Suppose Ann is 25 years old. Her boss tells her that she will pay Ann $12,000 a year in retirement when Ann is 65. Ann's boss must set aside enough money now to make those $12,000-a-year payments 40 years from now. Ann's boss will need to estimate what investment return she can earn on the funds and how many payments she will need to make (i.e., how long Ann will be retired).

In some cases, instead of a fixed amount, the pension benefit amount is calculated based on a formula—for example, a combination of worker's earnings and years of work. Suppose the formula for Sam's company pension is 1 percent of the average of his earnings for the last three years times the number of years he has worked for the company. Sam's earnings for the last three years were $40,000, $50,000, and $60,000 (the average is $50,000), and he retired after 30 years of work. The formula is: 1% × 50,000 × 30= $15,000.

Again, Sam's boss must set aside enough money now to make those $15,000-a-year payments 30 years from now. In addition to estimating the investment return she can earn on the funds and how long Sam will be retired, she will need to estimate how long Sam will work for her and what Sam's salary will be in his last 3 years of work.

With a defined benefit plan, employers are responsible—and bear the risk—for having enough money in the fund to be able to pay for the pension. The actual cost of the defined benefits plan to the employer is uncertain. The cost is only an estimate because the formula depends upon a number of variables, such as the average retirement age, the life spans of employees, the returns earned by any of the pension's investments, and any additional taxes.

Up until the 1980s, defined benefit plans were the most common type of pension plan. But these plans lost popularity due to their cost and changes in the laws that cover pensions. Also, as workers changed jobs more often, there was a need to have a pension plan that was more portable and could move with the employee from one employer to another. The need to maintain defined benefit plans contributed to the financial woes of companies such as General Motors during the economic crisis of 2008–2009.

Defined Contribution Plans

In contrast to a defined benefit plan that defines the benefit to be paid in the future in retirement, a defined contribution plan defines the amount an employer will contribute into an account for each employee. Employees may be able to choose how the contributions to their accounts are invested; choices can include mutual funds, stocks or other investments, and securities. The returns on the investments, either gains or losses, are credited to the individual employee's account.

At retirement, the amount of money in the account is used to create the series of payments the retired worker will receive in retirement. With a defined contribution plan, employees—not the employer—bear responsibility for having enough money in the pension account for retirement. If employers contribute enough and make good investment choices, the investments grow and employees will have a large amount in their accounts to use in retirement; if employers make poor choices, employees will not have as much money in retirement.

For example, suppose Ben's employer tells Ben he will put $1,000 per year into a defined contribution plan. At the end of 30 years, Ben's employer will have paid $30,000 into Ben's account. If Ben's employer chooses an investment that pays 2 percent per year, at the end of 30 years, Ben will have $1,217,042 in his account. If Ben takes out $5,000 per month, his money will last about 30 years. On the other hand, if Ben's employer chooses an investment that pays 5 percent, at the end of 30 years, Ben would have $1,993,165—or nearly $776,000 more. He could take out $10,700 a month—more than double—and his money would still last 30 years.

Employers can easily calculate the cost of a defined contribution plan, in contrast to the defined benefit plan. Once employees are vested (eligible to receive money) in the plan, most plans are portable—as workers change jobs, they can take their funds with them or roll them over into an individual retirement account.

Defined contribution plans, since their emergence in the 1980s, have shown themselves to be highly successful retirement tools; indeed, they have become the modern standard for U.S. corporations. At the same time, however, participants in these plans can face risks if they are not careful in monitoring their investments. In some cases, in fact, such as that of the collapse of the investment market in 2008, even monitoring may not help. It is estimated that *trillions* of dollars in savings were lost virtually overnight by owners of retirement accounts (401(k)s, IRAs) when the markets ceased functioning.

Cash Balance Plans

A third type of pension plan—the cash balance plan—is a defined benefit plan, but the benefit that is defined is an account balance, not a monthly benefit. For example, instead of promising workers a pension of $12,000 a year, a cash balance plan would promise a nest egg of $100,000 at retirement. When workers reach retirement, they have a choice of taking a series of monthly payments (an annuity) or taking the entire cash balance as a lump sum. Most traditional defined benefit pension plans do not offer this lump sum payout feature.

How Are Pension Benefits Paid Out?

Most pensions give retirees a choice of how to receive benefits—and how much they receive depends on which option they choose, because some options pay more per month than others. As with the cash balance plan, one option may be to take a lump sum from

STATE PENSIONS AND FISCAL CRISIS

As the economic meltdown of 2008 began to spread throughout the economy, states came to realize that they were extremely vulnerable. Not only did they face some of the largest budget gaps ever (over $300 billion collectively by the end of 2009), but revenues dropped significantly and, to date, remain in a troubled state. Moreover, state pension funds—money set aside for retired teachers, state police, and other government employees—face severe shortages.

According to the Pew Center (2010), there is a $1 trillion gap between what states have promised to pay their retirees and what they actually hold as financial assets. Some researchers, in fact, consider this estimate to be far too low (Biggs 2010). The problem has to do in part with where state pension funds were invested before the recession; in many cases, the funds were tied to high-risk, high-yield hedge funds along with more traditional investments, many of which collapsed or shrank dramatically in the economic downturn. In some cases—as in California, Colorado, and Illinois—governors previously had approved pension increases for state employees or had taken out bonds to cover their states' pensions, expecting that the investment market would increase and the value of their pension funds would rise.

Once the ensuing budget crunch hit home, however, lawmakers were forced to seek alternative solutions. New York, for example, raised its retirement age for new hires from 55 to 62. New Hampshire, Connecticut, and Texas required new workers to contribute more from their paychecks to state pension plans. Oregon and Vermont reorganized their pension investment boards to bring greater expertise to the table. And several states altered the formulas they used to calculate benefits. Even with such efforts, however, experts expect that it could be a decade or two before states start realizing any positive effects emerging directly out of changes to their pension plans.

the plan. Retirees could then invest this amount in an account and then withdraw interest and principal from the account.

Employees may have a choice of how much their monthly benefits will be. Usually, the option that pays the most per month is a single life annuity option. In this payout plan, pension benefits are paid out based on the retiree's life expectancy. Because women tend to live longer than men, the payout for men is usually higher than for women. Another option is a joint and survivor annuity. The benefits are based on the life expectancy of the retiree and the joint beneficiary of the pension—usually the husband or wife of the retiree. The monthly benefits for a joint and survivor annuity are generally lower than the single life annuity option, because the pension plan has to pay out benefits over the combined life expectancy of two people, which is usually a longer period of time.

Some pension plans provide for benefits to be paid out for a guaranteed number of years, regardless of how long the retiree lives. For example, employees may be able to choose a 20-year certain single life annuity. If an employee retired at age 65 and chose

this option, he would receive benefits throughout the rest of his life, even if he lived to be 100. If he only lived until age 75, the remaining 10 years of the 20-year certain payouts would go to a designated beneficiary. The payouts for this option depend on the number of years of guaranteed payouts and are generally lower than those for the single life annuity but higher than payouts for the joint and survivor annuity.

Not all pensions adjust to accommodate cost-of-living increases—an important feature to consider in planning for retirement income. Suppose a pension paid out $1,000 a month, with no cost-of-living adjustment. If prices rise 10 percent over five years, it would take $1,100 to buy the same goods and services that once cost $1,000, but the pension stays at $1,000. Retirees would need to have some other source of funds, such as other retirement savings or IRAs, to maintain their purchasing power.

Consumer Protections in Pension Plans

The major federal law that provides consumers rights and consumer protections for their pensions is the Employee Retirement Income Security Act (ERISA). For example, ERISA sets out the maximum vesting period—how long employees need to work for an employer before they have a right to a pension that cannot be taken away. There are two vesting options for pension plans. The first option, called cliff vesting, provides employees with 100 percent of their benefits after five years of service. If an employee leaves after only four years of work, she will have no pension.

The second option provides for graduated vesting; employees earn a right to 20 percent of their benefits after three years, and then increases of 20 percent per year (40 percent after four years, 60 percent after five years, 80 percent after six years), so that after the seventh year, employees have rights to 100 percent of their benefits.

What happens if the company goes out of business—and the pension that workers were counting on goes away? ERISA also created the Pension Benefit Guaranty Corporation (www.pbgc.gov), which ensures pension benefits for workers. The drawback is that the benefit amounts retirees receive from the PBGC may be less than the pension benefits they were expecting—so they have less money in retirement. (And PBGC was itself hit hard by the recession but remains properly funded.)

ERISA also requires that if a retiree chooses a single life annuity option, the spouse must cosign the benefit selection form. This provision came about because many retirees were choosing single life annuity options, which paid more while the retiree was alive but left their spouses with no pension income. In an era when many women were not employed outside the home, this made a lot of sense—without a pension, many widows had to survive only on Social Security.

401(k), 403(b), and 457 Plans

A 401(k), 403(b), or 457 plan is an employer-sponsored retirement plan that allows employees to set aside some of their current earnings as personal savings for retirement.

Employees do not pay taxes on these earnings until they withdraw them in retirement, when their tax rate may be lower. The numbers refer to the sections in the Internal Revenue Service tax code that apply. The 401(k) applies to most workers, while a 403(b) plan covers workers in educational institutions, religious organizations, public schools, and nonprofit organizations; 457 plans cover employees of state and local governments and certain tax-exempt entities.

Neither benefits nor contributions to these plans are defined. Employees choose how much to contribute (up to limits set by the IRS) and how to invest the money. Workers over age 50 can contribute extra money into a catch-up fund for retirement. If employees move to a different job, they can roll over the money into an individual retirement account, or they may be able to move the assets into the new employer's 401(k) plan.

Employers may match worker contributions—an important benefit to think about when one is looking for a job. Consider Matt and John. Both work for Mega Corporation, which provides a match of up to 5 percent in the company 401(k). Both make $40,000 a year. Matt does not participate in Mega's 401(k), so his taxable salary and total compensation are $40,000. John, on the other hand, contributes 5 percent to his 401(k). His pay is reduced by $2,000, so his taxable salary is $38,000 instead of $40,000. But Mega Corp. adds a matching 5 percent—$2,000—to his 401(k) fund. So John's total compensation is his $38,000 pay plus the $2,000 he puts into his 401(k) plan plus Mega's $2,000 contribution to his 401(k)—or a total of $42,000.

Some employers have opt-in 401(k) plans and others have opt-out or automatic enrollment plans. For automatic enrollment plans, employers set an initial contribution rate and investment option. In either case, employees can choose how much to contribute and how to invest the money to tailor it to their specific needs.

IRAs, SEP IRAs, and Keogh Plans

Individual retirement accounts are self-directed retirement accounts—workers choose how much to contribute and how to invest the money. Money contributed to an IRA must come from earnings, although spouses not employed outside the home are allowed to put money into an IRA as well. There are three kinds of IRAs: pretax IRAs, posttax IRAs, and Roth IRAs.

Contributions to a pretax IRA are restricted to people without other pensions and are subject to income limits set by the IRS. Taxes on the money put into the account and taxes on any interest or gains are deferred until retirees withdraw the money.

Almost anyone can set aside money in a posttax IRA, again subject to IRS limits for annual contributions. When retirees withdraw the money, they pay taxes on the earnings but not on the principal.

A Roth IRA is a special kind of posttax IRA; contributions are limited by income, but all withdrawals are tax-free. Money invested in any of theses types of IRAs is usually put into securities, particularly stocks, bonds, and mutual funds.

SEP IRAs, simplified employee pension plans, are usually used by small businesses that want to provide their employees with some retirement funding. Employees set up their own IRAs and employers can contribute to these accounts.

Keogh plans are for self-employed individuals and their employees. These plans receive special tax treatment like a tax deferral on contributions and earnings until workers retire and start receiving benefits.

The Internal Revenue Service has special rules about money in IRAs, which it enumerates in IRS Publication 590 (available at http://www.irs.gov/pub/irs-pdf/p590.pdf). If workers withdraw money before age 59 1/2, they have to pay taxes on that money as well as a 10 percent penalty. Also, workers must start withdrawing funds by age 70 1/2, and there are specific minimum withdrawals required under tax law.

Conclusion

There are more options, and therefore more choices, for retirement planning today than in the past. The days of working without having to worry about retirement are long gone (if, indeed, they ever existed in the first place). Especially as more people change jobs over the course of their careers, taking advantage of options for accumulating funds for retirement becomes even more important.

Many commentators on both sides of the political spectrum welcome the range of retirement options and find that a mix of corporate and individual responsibility is the best means for satisfying the working public's retirement needs. Critics on the right (i.e., conservatives and libertarians) generally prefer that businesses not be unduly burdened with providing for the retirement security of their employees; they emphasize the need to shift pensions in the direction of individual savings and investment accounts. Critics on the left (i.e., liberals and social democrats), on the other hand, tend to prefer that businesses contribute significantly to the retirement security of their employees; they argue that personal retirement accounts are not for everyone. Where the pendulum rests at any given moment depends on many factors, both economic and political.

See also **Executive Pay; Labor, Organized; Social Security**

Further Reading

Biggs, Andrew G., "Comment Re: 'Promises to Keep: State's Face a Looming Pension Crisis'." *Economist* (February 18, 2010).

Blake, David, *Pension Economics.* New York: John Wiley, 2006.

Bucks, Brian K., et al,. "Changes in U.S. Family Finances from 2004 to 2007: Evidence from the Survey of Consumer Finances." *Federal Reserve Bulletin 95* (February 2009): A1–A55.

Employee Benefits Research Institute, *EBRI Databook.* 2009. http://www.ebri.org/publications/books/index.cfm?fa = databook

Gale, William G. et al., eds., *The Evolving Pension System: Trends, Effects, and Proposals for Reform.* Washington, DC: Brookings Institution Press, 2008.

Ghilarducci, Theresa, *When I'm Sixty-Four: The Plot against Pensions and the Plan to Save Them.* Princeton, NJ: Princeton University Press, 2008.

Lowenstein, Roger, *While America Aged: How Pension Debts Ruined General Motors, Stopped the NYC Subways, Bankrupted San Diego, and Loom as the Next Financial Crisis.* New York: Penguin, 2009.

Modigliani, Franco, and Arun Muralidhar, *Rethinking Pension Reform.* Cambridge, England: Cambridge University Press, 2005.

Morris, Charles R., *Apart at the Seams: The Collapse of Private Pension and Health Care Protections.* New York: Century Foundation, 2008.

Orenstein, Mitchell A., ed., *Pensions, Social Security, and the Privatization of Risk.* New York: Columbia University Press, 2009.

Pew Center on the States, "The Trillion Dollar Gap: Underfunded State Retirement Systems and the Roads to Reform." February 2010. http://downloads.pewcenteronthestates.org/The_Trillion_Dollar_Gap_final.pdf

POVERTY AND RACE

James H. Johnson Jr. and Michael Shally-Jensen

Before the 2010 oil spill in the Gulf of Mexico, Hurricane Katrina's devastation of the city of New Orleans and other Gulf Coast communities in 2005 refocused the nation's attention on the relationship between race and poverty. The people most adversely affected by this catastrophic event and its aftermath were overwhelmingly black and overwhelmingly poor. A common reaction to the media's dramatic images of disaster victims in New Orleans, especially those seeking refuge in the attics of flooded homes, building rooftops, and the Superdome, was "I didn't think the problem of race and poverty was still with us."

As this entry shows, the attention to poverty and race brought about by Katrina is yet another phase in the race/poverty discourse in the United States, which has shifted sharply several times over the past few decades. In this entry, we will show how the face of poverty in the United States has changed over the past 40 or 50 years in response to antipoverty policies and structural changes in the economy.

Background and Context

Concerns about America's poor ebbed and flowed throughout the 20th century. After receiving limited public policy attention prior to World War II, concern about the United States' poverty problem abated after the war, and it did not become a priority policy issue again until the early 1960s.

Since the early 1960s, public policies implemented to alleviate poverty in the United States have ranged from the very liberal to the extremely conservative. Reflecting this state of affairs, the absolute and relative size of the poor population in the United States

has fluctuated widely over the last 50 years. Table 1 shows the poverty status of the U.S. population for selected years between 1960 and 2008.

The Poor and Efforts to Alleviate Poverty in the United States

Political attitudes toward America's poor were decidedly liberal during the 1960s. In both political and policy circles, the prevailing view was that poverty was a structural problem characterized by racial discrimination and systematic exclusion of racial minorities in all walks of American life. This view led to the first major federal effort after World War II to address the country's poverty problem: the war on poverty and the Great Society programs launched by President Lyndon Johnson.

Before the war on poverty, the U.S. poor totaled 39.8 million, 22.4 percent of the nation's population in 1960 (Table 1). As a consequence of the Johnson administration's antipoverty programs, which sought to redress the systematic inequities in U.S. society, the incidence of poverty was reduced by 36 percent during the 1960s. By 1970, only 25.4 million people (12.6 percent of the U.S. population) were poor.

But the war on poverty was short lived, as the Vietnam War assumed center stage during the early 1970s, resulting in a redirection of federal resources away from efforts to eradicate poverty. Moreover, with the election of President Richard Nixon, attitudes toward the poor became more conservative: the prevailing view held that poverty was a function of human or personal failings rather than a structural problem. As a consequence of these developments, the assault on America's poverty problem was substantially curtailed just as economic stagflation and a deep recession occurred, resulting in an increase—absolute and relative—in the size of the nation's poor population. During the 1970s, the U.S. poor grew from 25.4 million to 29.2 million, increasing from 12.6 percent to 13 percent of the total population by 1980 (Table 1).

Political attitudes toward the poor became even more conservative during the 1980s. Instead of acknowledging the short duration of the nation's official war on poverty, both the Reagan and Bush administrations of the 1980s argued that the nation's persistent

TABLE 1. Poverty Status of the U.S. Population (in thousands),* Selected Years (1960–2008)

Year	All People	Poor People	Percent Poor
1960	179,503	39,851	22.2
1970	202,183	25,272	12.6
1980	225,027	29,272	13.0
1990	248,644	33,585	13.5
2000	278,944	31,581	11.3
2008	301,041	39,829	13.2

*Population figures must be multiplied by 1,000. Thus, 179,503 becomes 1,795,300.
Source: U.S. Census Bureau. "Poverty." Historical tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html

poverty problem, especially the resurgence of growth during the 1970s, was a product of 1960s-era liberal policymaking. In their eyes, the federal welfare program—Aid to Families with Dependent Children (AFDC), in particular—was the culprit.

AFDC, they contended, destroyed the work ethic, bred long-term dependency, and encouraged a range of other antisocial or dysfunctional behaviors, including out-of-wedlock pregnancy, family disruption, and even illegal activities revolving around gangs and drug dealing, especially in the nation's cities. The problem, they asserted, was not material poverty but, rather, moral poverty. They also believed that the antipoverty programs of Johnson's Great Society slowed the economy by sapping taxes from productive investments that would otherwise spur economic growth and job creation.

To combat these problems and behaviors, the Reagan and Bush administrations waged what some characterize as a war on the poor, drastically cutting federal spending on social programs (especially AFDC) and eliminating government regulations viewed as crippling industry and private enterprise. These policies, especially efforts to create a deregulated business environment, drastically altered the structure of economic opportunity for the nation's most disadvantaged citizens, in particular the large number of African Americans concentrated in urban ghettoes.

Specifically, the business policies accelerated the decline of highly unionized, high-wage, central-city manufacturing employment—a process referred to as deindustrialization—and accelerated capital flight away from U.S. cities and toward Third World countries—a process referred to as employment deconcentration—leaving behind a substantial population that became the jobless or underemployed poor. Partly as a function of these business policy impacts and partly as a consequence of cuts in a host of 1960s-era social programs, the poor population continued to increase during the 1980s, reaching 33.5 million, or 13.5 percent of the total U.S. population, by 1990.

During the 1990s, the poor population declined for the first time since the 1960s—from 33.5 million (13.5 percent of the total population) at the beginning of the decade to 31.5 million (11.3 percent of the total population) at the end. It should be noted that this decline occurred despite prognostications that poverty would increase substantially after the enactment of the most sweeping welfare reform legislation since the war on poverty was launched in the mid-1960s—the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA).

In an effort to respond to past criticisms of the social welfare system, especially those advanced by conservative social policy analysts, the 1996 PRWORA sought to reduce dependency by imposing time limits on welfare. Reflecting liberal views about the underlying causes of poverty, it also provided a range of supports designed to encourage and facilitate former welfare recipients' transition to work. Thus, in contrast to the liberal policies of the 1960s and the conservative policies of the 1980s, this legislation was decidedly centrist, as it represented a "carrots" (work incentives and supports) and "sticks" (welfare time limits) approach to poverty alleviation in the United States.

DUELING MEASURES OF POVERTY

Although poverty might seem like a simple concept, it isn't. Measuring poverty requires specific calculations, which means poverty must be precisely defined.

The official definition of poverty used by the U.S. Census Bureau is nearly 50 years old. Developed in 1965, the formulation of the definition involved several steps. First, the spending necessary for a household to consume nutritious yet frugal meals was calculated. This spending was different for households of different sizes. Second, this food spending was multiplied by a factor—roughly three—to equal the spending necessary to afford an adequate amount of all consumer goods and services. This, then, was the poverty threshold. Finally, if a household's income from working was below the poverty threshold for its size, then the household was classified as poor. Each year the poverty thresholds are adjusted upward to account for the general increase in the cost of living.

There are many issues with the official measure of poverty, but two in particular stand out. One is whether simply multiplying food spending by three is adequate to produce an income that would allow one to afford all necessary goods and services. What if prices and costs for some services, like health care, are increasing much faster now than in the past? This might mean the poverty thresholds are too low.

A second issue is whether the values of various kinds of public assistance received by households should be included before it is decided whether a household is poor. For example, many households receive assistance through programs like Food Stamps and Medicaid. Many households also receive direct cash assistance through temporary welfare payments and payments from the government if they are working and their earnings fall below a certain level (the name of this program is the earned income tax credit). If the objective of measuring poverty is to see how many people are poor after government-provided help is accounted for, then the value of these government programs should be included in a household's income.

The U.S. Census Bureau calculates poverty rates based on these two concerns. An alternative poverty rate includes the cost of medical services in the poverty thresholds. When this is done, the poverty rate (percentage of people who are designated poor) increases approximately 1 percent from the official rate. Another alternative poverty rate is calculated after the values of government antipoverty programs in a household's income are included. These poverty rates are approximately four percentage points below the official rate.

The conclusion is that how much poverty exists depends on how poverty is defined and measured.

The successful implementation of the reforms inherent in the 1996 legislation was aided tremendously by the decade-long economic boom, which created a large number of entry-level jobs that matched the skill levels of the long-term welfare-dependent population. But the economic crises of 2008–2009 adversely affected the federal government's effort to move former welfare recipients to the world of work as well as the

structure of employment opportunities in the U.S. economy more generally, especially for low-skilled workers. Due to the massive layoffs spawned by corporate scandals and business failures, the U.S. poor population increased by 8.2 million after 2000, bringing the total to 39.8 million in 2008. As a result of this absolute increase, the share of the U.S. population that was poor increased from 11.3 percent in 2000 to 13.2 percent in 2008. (More recent data, although incomplete, looks just as bad or worse.)

Uneven Impacts of Past Poverty Alleviation Programs

Focusing on the period from 1970 to the present (for which there are more complete data available), and notwithstanding the fluctuations in the absolute and relative size of the U.S. poverty population over the last 40 years, there were, according to the Census Bureau, 14.6 million more poor people in the United States in 2008 than there were in 1970 (or about the same number of poor as in 1960). It should be noted that this absolute increase occurred in the midst of a 49 percent increase in the total U.S. population—from 202.2 million in 1970 to 301 million in 2008 (see Table 1). However, compared to the period 1960 to 2000, where there was an even greater relative increase in population (55 percent) together with an absolute *decrease* in the number of poor people (8.3 million), the more recent period (1970 to 2008) looks remarkable for its lackluster results. One could perhaps point to the 1960s social programs at the one end of the scale and the layoffs of the 2000s (capped by the start of the economic crisis of 2008–2009) at the other end, to explain part of this striking difference.

As should be evident from these data, past efforts to alleviate poverty in the United States have been unevenly distributed, resulting in a significant shift in both the demographic composition and the geographical distribution of the poor. Figure 1 provides insight into where significant inroads have been made in the alleviation of poverty and where major challenges remain. Figures 2 through 5 illustrate how the face of poverty in the United States has changed over the last 40 years as a consequence of the uneven distributional impacts of past poverty alleviation efforts.

Between 1970 and 2008, as Figure 1 shows, there was a 14.9 percent decrease in the rate of poverty among senior citizens, an 8.8 percent decrease in the rate of poverty among blacks (as many moved into the middle class), a 6.7 percent decrease in the poverty rate among women-headed households, a 4.2 percent decrease in the poverty rate in the South (as employment increased), and a 1.8 percent decrease in the poverty rate in nonmetropolitan areas. On the other hand, there were increases in the poverty rate in many categories: 3.9 percent among children and youth; 3.5 percent in central cities; 2.7 percent among adults aged 18 to 64; 2.7 percent in noncentral cities; between 2.4 and 2.2 percent in the Midwest, the West, and the Northeast; and smaller but notable increases among whites (1.1 percent), men (0.9 percent), families (0.6 percent), Hispanics (0.5 percent), and women (0.4 percent).

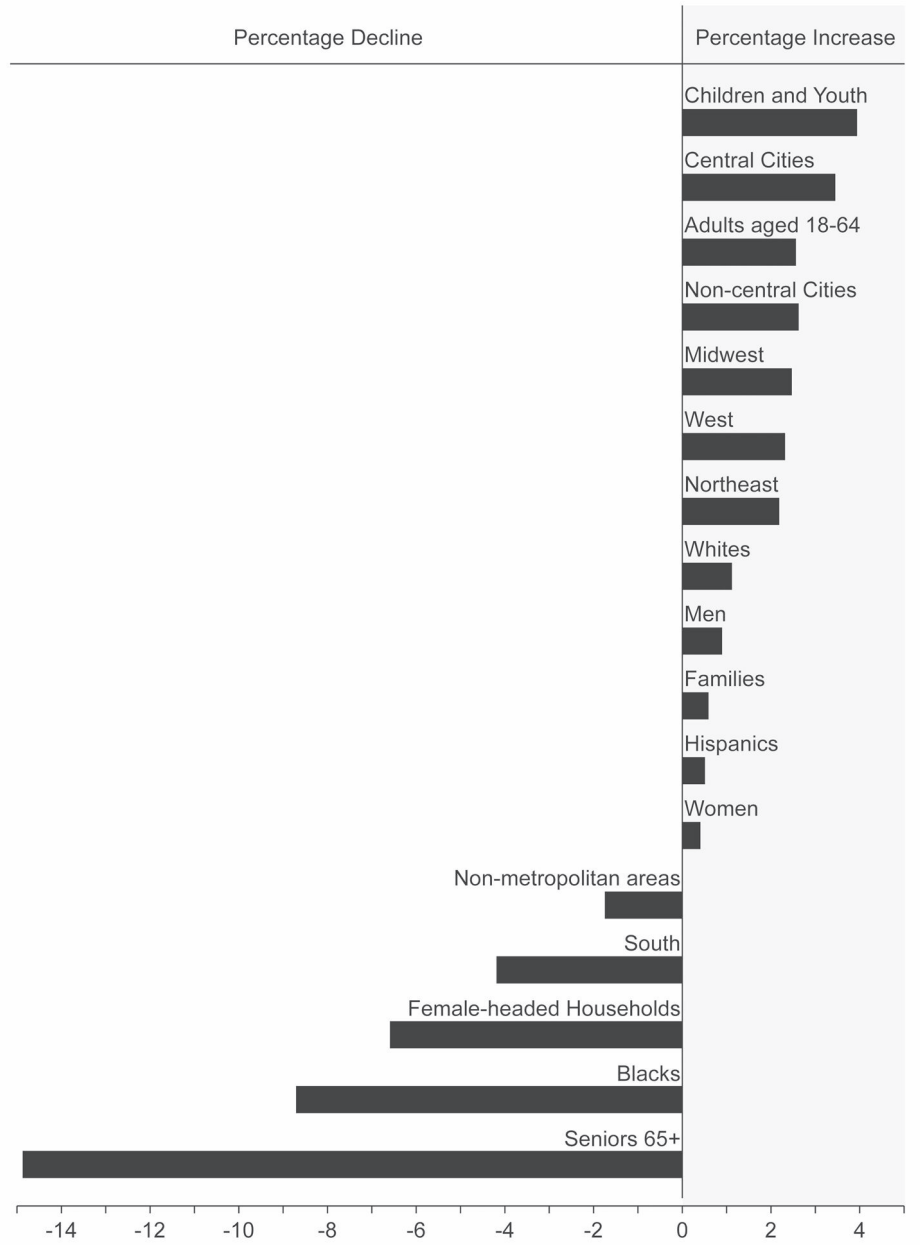


Figure 1. The Changing Profile of the U.S. Poor (1970–2008) (U.S. Census Bureau. "Poverty." Historical Tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html)

Undergirding these statistics are five noteworthy shifts that have transformed the face of poverty in the United States over the last 40 years: shifts in regional distribution and place of residence as well as changes in the age, family status, and racial and ethnic composition of the nation's poor.

As Figure 2 shows, the decline of the South's share of the U.S. poor and the concomitant increase in the West's share is one of these shifts—even while the South remains the region with the highest number of poor. In the early 1970s, close to half of the nation's poor was concentrated in the South. Close to 40 years later, the South's share of U.S. poverty had decreased to 40 percent. Paralleling the South's declining share, the West's share of the nation's poor increased from 16 percent in 1971 to 24 percent in 2003. As shown below, this shift is due in part to the influx of poor Hispanic immigrants into the United States over the last three decades, most of whom settled—at least initially—in the Southwest. Throughout this period, as Figure 2 shows, the Northeast's and Midwest's shares of the nation's poor remained relatively stable—in the 17–20 percent range in both regions.

Changes in the types of communities in which the nation's poor reside constitute a second major shift. As the United States has become more urbanized, so has the poor population. In the early 1970s, as Figure 3 shows, almost half of the nation's poor resided in rural areas. By 2008, only 17 percent resided in such areas. Today, a majority of the U.S. poor lives in metropolitan areas, with significant concentrations both inside and outside central cities.

Over the past 40 years, the age composition of the poor also has changed; this constitutes the third major shift. In general, the shares of the U.S. poor under age 18 and over

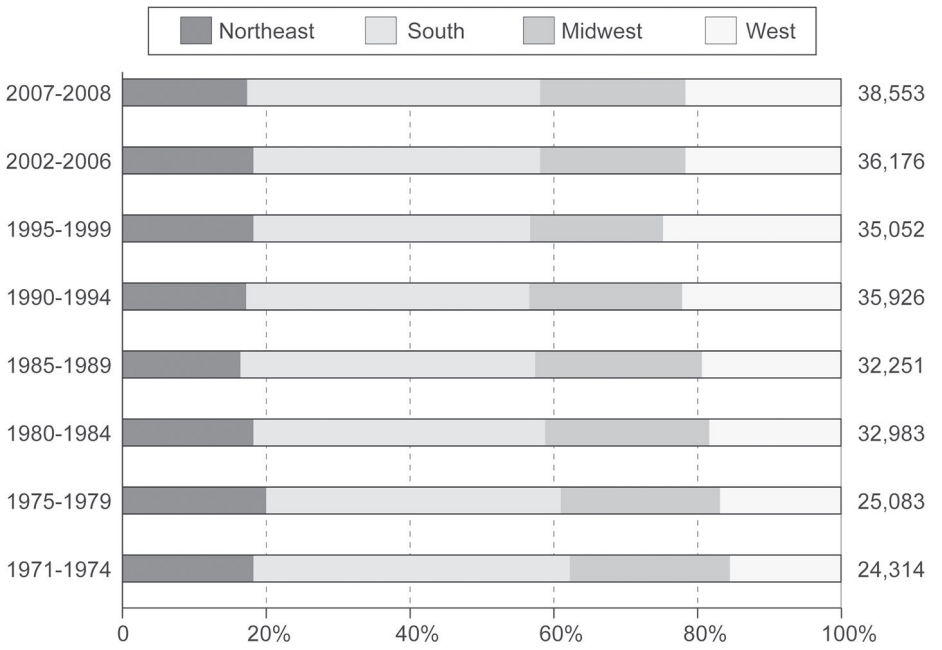


Figure 2. Distribution of U.S. Poor by Region (1971–2008) (U.S. Census Bureau. "Poverty." Historical Tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html)

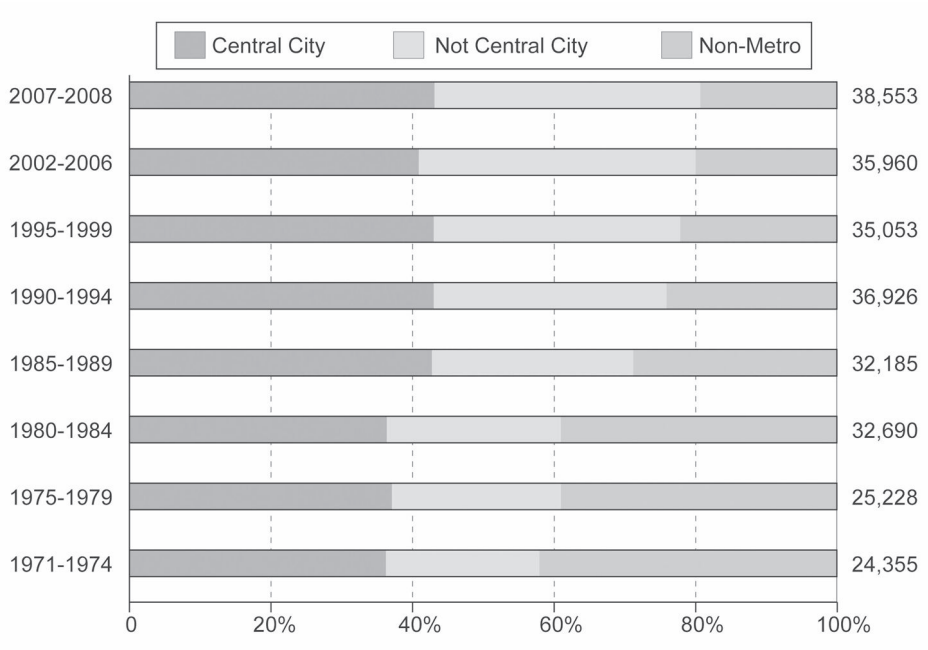


Figure 3. Distribution of U.S. Poor by Place of Residence (1970–2008) (U.S. Census Bureau. "Poverty." Historical Tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html)

age 65 decreased, while the number of those in the 18–64 age group increased sharply (see Figure 4). Historically, poverty among working-age individuals (ages 18 to 64) was due primarily to detachment from the labor market (i.e., jobless poverty). However, as the U.S. economy was structurally transformed from goods production to service provision, a growing contingent of the labor force became what is referred to as the working poor. Due to skills deficits or other types of constraints (e.g., lack of affordable child care, inferior public school education, lack of economic opportunities in close proximity, and employer bias), these individuals have been relegated to part-time jobs they do not want—mainly in the service sector of the U.S. economy—or full-time jobs that pay below poverty-level wages, provide few (if any) benefits, and offer no prospects for career mobility (see Table 2). Many of these problems were exacerbated by the recent financial crisis, as figures for the period after 2008 (not published by the Census Bureau at the time of this writing) are likely to show.

The family context in which the poor find themselves is the fourth major shift. Poverty among all families increased slightly—by 0.6 percent—over the last four decades. As can be seen in Figure 5, moreover, poverty has become less concentrated in married-couple families and more concentrated in women-headed families, which accounted for about half of all families in poverty in 2008. This shift has been termed the *feminization of poverty.* Even so, as noted above in the discussion of Figure 1, some progress has been made since 1970 in reducing (by 6.7 percent) the poverty rate within this demographic

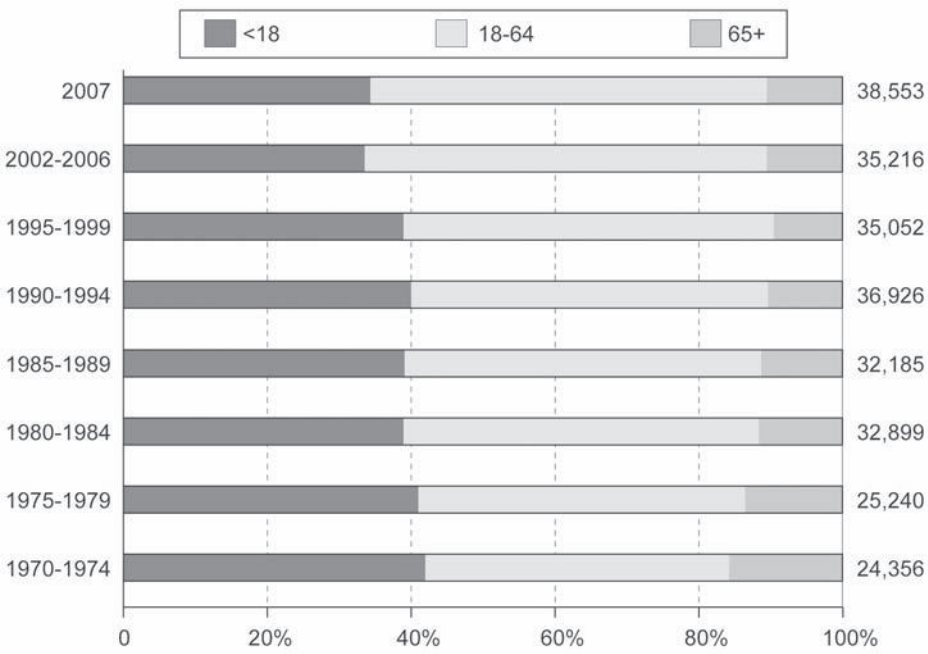


Figure 4. Distribution of U.S. Poor by Age (1970–2007) (U.S. Census Bureau. "Poverty." Historical Tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html)

group. In other words, as the *number* of women-headed households continues to increase and as poverty affecting families in general remains at a relatively high level, the prospect of experiencing poverty remains an issue for these families; and yet, as a group or class, women-headed households have witnessed a decline (6.7 percent) since 1970 in the *rate* at which they experience poverty.

Change in the racial and ethnic composition of the nation's poor population is the fifth major shift. Heightened immigration—legal and illegal—from Mexico, other parts of Latin America, and Southeast Asia is principally responsible for the increasing diversity of the nation's poor. The white share of the U.S. poor declined from nearly 70 percent in 1970 to 42.7 percent in 2008. During this period, the African American share declined from 30 percent to 24 percent. These declines have been offset by increases among the immigrant groups, especially Hispanics. Since the early 1970s, the Hispanic share of the nation's poor has grown from 10 percent to 27.6 percent.

Conclusion

A range of public policies spanning the political ideological spectrum have been implemented to address the poverty problem in the United States since the 1970s. Whether because of these policies or their failure or because of fundamental shifts in the U.S. economy, more Americans live in poverty today than 40 years ago, in both proportional

TABLE 2. Work Status of Poor People Age 16 Years and Older (in thousands),* Selected Years (1980–2008)

Year	Total Number of People Age 16 and Older	Worked		Worked Full-Time	
		Number	Percent	Number	Percent
1980	18,892	7,674	40.6	1,644	8.7
1985	21,243	9,008	42.4	1,972	9.3
1990	21,242	8,716	41.0	2,076	9.8
1995	23,077	9,484	41.1	2,418	10.5
2000	21,080	8,511	40.4	2,439	11.6
2005	25,381	9,340	36.8	2,894	11.4
2008	27,216	10,085	37.1	2,754	10.1

*Population figures must be multiplied by 1,000. Thus, 18,892 becomes 18,892,000.
Source: U.S. Census Bureau, "Poverty." Historical tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html

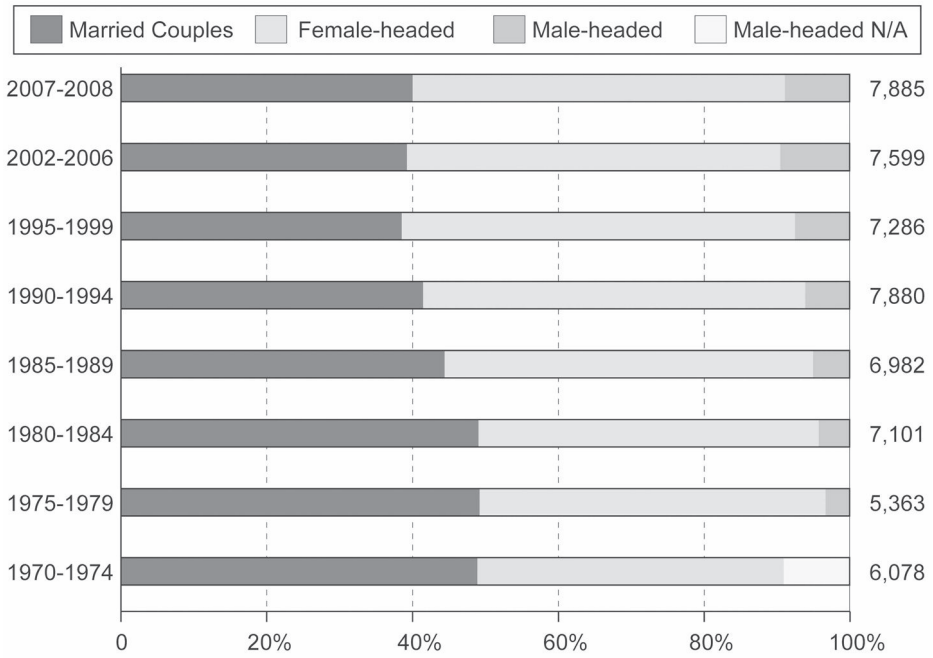


Figure 5. Distribution of U.S. Poor by Family Type (1970–2008) (U.S. Census Bureau. "Poverty." Historical Tables. http://www.census.gov/hhes/www/poverty/histpov/histpovtb.html)

terms (12.6 percent to 13.2 percent) and absolute terms (from 25.3 million to 39.8 million).

While many of the social and economic conditions associated with poverty in the 1970s persist, immigration, combined with regional and global shifts in job growth, changed the face of poverty in the United States in several ways.

- Poverty in the South declined significantly, but there were increases in the other regions as the economy adjusted to globalization.
- Rural poverty declined, while urban poverty grew.
- Poverty among senior citizens and blacks declined, while poverty among both working-age adults and children and youth increased significantly. Today, the working poor account for a higher proportion of Americans in poverty than the jobless poor, and children and youth have suffered the effects along with their parents or guardians.
- Poverty decreased in women-headed, single-parent households even as the number of these families grew, especially among African Americans. At the same time, poverty in families in general increased slightly.

Given the current economic downturn, this picture is likely to get worse before it gets better. If and when the situation does turn around, or perhaps even before that, policymakers would do well to revisit the issue of poverty in the United States and decide what can be done to build on progress that has been achieved to date while also attending to those areas that remain challenges.

See also **Affirmative Action; Consumer Credit and Household Debt; Immigrant Workers; Minimum Wage; Unemployment; Child Care (vol. 3); Homelessness (vol. 3)**

Further Reading

Arrighi, Barbara, and David J. Maume, eds., *Child Poverty in America Today.* Westport, CT: Praeger, 2007.

Chappell, Marisa, *The War on Welfare: Family, Poverty, and Politics in Modern America.* Philadelphia: University of Pennsylvania Press, 2010.

Chih Lin, Ann, and David R. Harris, eds., *The Colors of Poverty: Why Racial and Ethnic Disparities Exist.* New York: Russell Sage Foundation, 2008.

Conley, Dalton, ed., *Wealth and Poverty in America: A Reader.* Malden, MA: Blackwell, 2003.

Epstein, William M., *Good Citizenship and the War on Poverty.* University Park: Pennsylvania State University Press, 2010.

Goode, Judith, and Jeff Maskovsky, eds., *New Poverty Studies: The Ethnography of Power, Politics, and Impoverished People in the United States.* New York: New York University Press, 2001.

Henry, C. Michael, ed., *Race, Poverty, and Domestic Policy.* New Haven, CT: Yale University Press, 2004.

Lang, Kevin, *Poverty and Discrimination.* Princeton, NJ: Princeton University Press, 2007.

Lindsey, Duncan, *Child Poverty and Inequality: Securing a Better Future for America's Children.* New York: Oxford University Press, 2009.

Newman, Katherine S., *The Missing Class: Portraits of the Near Poor in America.* Boston: Beacon Press, 2007.

Patterson, James T., *America's Struggle against Poverty: 1900–1985.* New York: Basic Books, 1986.

Royce, Edward Cary, *Poverty and Power: The Problem of Structural Inequality.* Lanham, MD: Rowman & Littlefield, 2009.

Schram, Sanford F., Joe Soss, and Richard C. Fording, eds., *Race and the Politics of Welfare Reform.* Ann Arbor: University of Michigan Press, 2003.

Wilson, William Julius, *More than Just Race: Being Black and Poor in the Inner City.* New York: W. W. Norton, 2009.

PRESCRIPTION DRUG COSTS

Brandon Kramer and Michael Shally-Jensen

Few issues have created such controversy as the rising cost of prescription medicine. News reports often quote examples of patients, especially seniors, who cannot afford their medications. The pharmaceutical industry and advocacy groups maintain very different positions as to why prescription drug costs are so high in the United States compared to other countries. This entry examines the costs and related issues from both the industry and consumer advocate perspectives.

Research and Development

Industry Standpoint

Pharmaceutical companies contend that searching for new drugs, or the next cure, can be a costly venture. It may take hundreds and possibly thousands of "concepts" (experimental compounds) to create one drug that makes it to market. Cost estimates of researching both successes and failures range from $500 million to $800 million. An estimate released in a study by economists at Tufts University stated that, on average, it takes almost 15 years to bring a new drug compound to the market. Only 1 compound out of 5,000 ever makes it to market. Only 30 percent of drugs that make it to market will ever recoup their research and development costs (Clayton 2008). The cost and risk involved are very high. This is one way the industry justifies the high cost of medicine.

The U.S. Food and Drug Administration (FDA) maintains a strict and lengthy process to approve a medication for use. After filing a patent for a new compound, the drug manufacturer has approximately 20 years to research, receive FDA approval, and market the new drug. This process often leaves only five or six years to profit from the extensive research before generic manufacturers can challenge the patent. Therefore, a company can be limited in the time it has to recover its investment.

The pharmaceutical industry defends its position on research and development costs by demonstrating that all top companies in a variety of industries are research and development–intensive. The pharmaceutical industry relies on new drugs to keep an income stream from which it can continue to search for new drug compounds. Pharmaceutical companies invested roughly $50.3 billion in research and development in 2008, which is roughly a 51 percent increase since 2003 (Archstone Consulting and Burns 2009).

U.S. FOOD AND DRUG ADMINISTRATION DRUG REVIEW STEPS

1. The sponsor holds preclinical (animal) testing.
2. An investigational new drug application outlines what the sponsor of a new drug proposes for human testing in clinical trials.
3. The sponsor holds phase 1 studies (typically involving 20 to 80 people).
4. The sponsor holds phase 2 studies (typically involving a few dozen to about 300 people).
5. The sponsor holds phase 3 studies (typically involving several hundred to about 3,000 people).
6. The pre–new drug application (NDA) period begins, just before a NDA is submitted. This is a common time for the FDA and drug sponsors to meet.
7. The submission of an NDA follows, which is the formal step asking the FDA to consider a drug for marketing approval.
8. After an NDA is received, the FDA has 60 days to decide whether to file it so it can be reviewed.
9. If the FDA files the NDA, an FDA review team is assigned to evaluate the sponsor's research on the drug's safety and effectiveness.
10. The FDA reviews information that goes on a drug's professional labeling (information on how to use the drug).
11. The FDA inspects the facilities where the drug will be manufactured as part of the approval process.
12. FDA reviewers will approve the application or find it either approvable or not approvable.

The U.S. government offers some help (mainly through research grants from the National Institutes of Health, or NIH), but in terms of overall development, the industry maintains that it bears most of the burden. The industry maintains that roughly 91 percent of all drugs brought to market have been fully funded by the industry, with no help from the NIH (GlaxoSmithKline 2005).

Consumer Advocate Standpoint

Consumer advocate groups contend that the numbers pharmaceutical companies present regarding the cost of research are overstated. Public Citizen, for example, released a report showing how the $500 million figure that the industry uses as a benchmark for new drug development is wrought with flaws and overestimates. The report showed that the $500 million figure is suspect and more likely a mathematical estimation. The true cost of researching and developing new medications, the report states, is significantly less—between $70 million and $110 million (Public Citizen 2001).

Anti-industry groups also illustrate that the pharmaceutical companies receive certain advantages—tax breaks, for example—for doing the research and development. These

government tax breaks could lower a pharmaceutical firm's tax burden considerably. The amount of tax incentives companies receive is a closely guarded secret within the industry. One such tax break involved incentives for pharmaceutical companies that built manufacturing facilities in U.S. territories. Many major manufacturers opened facilities in Puerto Rico to take advantage of this opportunity. Under this incentive plan, the industry's average tax rate was believed to be around 26 percent, as compared to roughly 33 percent for all other major U.S. industries (Greider 2003). Advocates for lower drug prices cite examples such as these to show that pharmaceutical companies do receive some benefit for the heavy investment in research and development.

Consumer groups also dispute claims that the pharmaceutical industry pays for most of the research involving new cures. The advocate groups believe that the National Institutes of Health often conducts the most basic and risky research and that the pharmaceutical companies begin their research only after an opportunity arises based on discoveries made through government research efforts. In recent years, in fact, there has been increased spending by pharmaceutical companies on the development of so-called me too drugs, or medications that do not differ in any fundamental way from medications already on the market but rather offer minor differences in terms of dosing, price, or similar aspects. These drugs are patently less expensive to produce.

New Medicine or Old Technology

Industry Standpoint

Recent television advertisements quote lines such as, "Today's medicines, financing tomorrow's miracles." This sums the industry view that, to discover new treatment, the cost of medication must remain at its current level. The industry invests heavily in research and development and needs to have adequate income to fund these ventures. New treatments for every disease, from AIDS to cancer, are being researched.

The principal industry trade group, Pharmaceutical Research and Manufacturers of America, or PhRMA, believes that these new cures are not only improving patient lives but are, in the long run, reducing the overall cost of health care. One study showed that treating patients with the latest medicines actually reduced their nondrug medical spending—for example, spending on hospitalization. The study showed that, for every extra dollar spent on new medicine, a corresponding decrease of $7.20 could be found in other health care costs (PhRMA 2005). Thus, the industry believes that it is not only funding future cures through revenues from its products but also helping to reduce the overall costs of health care by means of these new treatments.

Consumer Advocate Standpoint

Consumer groups respond to the pharmaceutical companies' suggestion that they are searching for the next cure by showing that many of the drug companies' newest products

are me-too versions of existing drugs rather than new chemical entities. The new drugs may offer extended release (XR), controlled release properties to existing drugs (CR), or a combination of two readily available drugs in one pill. This allows for patent extension and continued profits from a drug that is about to become generically available. The producer simply changes the pill to make it time released or endow it with other properties and does clinical research showing the benefits of doing so. The FDA is more likely to approve the XR or CR version, which then becomes a market drug with extended patent protection. Advocacy groups see a serious decline in the number of compounds being studied to treat or cure new diseases or new ways to treat existing conditions. In fact, most widely advertised products are often product line extensions based on existing chemical entities. The industry is providing fewer new drug entities and increasing its output of current brand extensions. In fact, according to one report, only 15 percent of new drugs developed between 1989 and 2002 were made of new chemical compounds, and over half of the new drugs brought to market were product line extensions (Public Citizen 2001).

Marketing and Administration Costs

Industry Standpoint

Many believe that perhaps the reason drug costs are so high is that pharmaceutical companies spend a lot of money on product promotion. Pharmaceutical companies refute this argument by stating that they spend far more on research and development than on marketing. The companies maintain that they are not as heavily involved in advertising, for example, as consumer-oriented companies such as Coca-Cola are.

To help get their messages to patients, pharmaceutical companies have, however, launched direct-to-consumer (DTC) campaigns aimed at helping the consumer/patient appreciate whether a drug may be right for him or her. This information is then to be discussed between the patient and the physician to determine whether the drug is appropriate. The cost of DTC is relatively low compared to other industry advertising of products. One industry estimate shows that only 2 percent of U.S. drug costs are attributed to DTC advertising (Greider 2003).

The majority of all sales expenditures for marketing are for the salespersons each company employs. They act as consultants on particular disease states and promote medications using clinical data to demonstrate why their products are superior. The sales representative is trained as an expert and is versed in the latest clinical research, bringing the newest information to physicians to help them treat their patients. It is the strong belief of the pharmaceutical companies that the most effective way to keep physicians abreast of the latest clinical data is through this type of selling (McKinnell 2005). The physicians simply do not have time to keep up with every new publication and study.

Consumer Advocate Standpoint

Responding to the industry view regarding marketing expenditures, advocates point to some interesting information. One study found, for example, that eight of nine pharmaceutical companies studied spent twice as much on marketing, advertising, and administration as on research and development (Families USA 2002). Such high expenditures fuel the argument that research and development into new cures might not need to suffer if price controls were to be implemented.

Administrative costs tend to garner attention when the top officers of a pharmaceutical company have their salaries and bonuses published annually by the Securities and Exchange Commission. These generous salary packages are one of the areas that advocacy groups point to as needing reform if the cost of prescription medications is to go down. Even in the wake of the economic crisis of 2008–2009, the major drug companies remained hugely profitable. Net incomes for these companies are reported to be several times the median for Fortune 500 companies (Angell 2010). Too much of that profit, say consumer advocates, goes into marketing products, paying salaries and bonuses, and providing "educational services" for physicians.

The latter is something unique to the field of medicine. Most states require doctors to take what are called continuing medical education (CME) courses to maintain their licenses. The idea is that doctors must stay abreast of developments in their field, and CME courses are a means of ensuring that. Unlike professionals in other fields, however, who either pay for their own continuing education or receive offsets from the companies for which they work, CME courses are typically paid for by drug companies as a way of bringing a physician on board. In addition, academic researchers and doctors are courted using meals, payments for conferences and speaking engagements, offers of substantial research grants, assistance with publication, and so on in an effort to bring or keep them on board with respect to the company's research interests. Besides posing questions about conflicts of interest, consumer advocates note that the practice adds considerably to pharmaceutical companies' overall costs (Angell 2010).

GENERIC DRUG PRICE COMPARISON

Drug	United States	Canada
Amiodarone	$41.89	$134.90
Verapamil	$43.97	$93.95
Diltiazem	$127.99	$145.00
Warfarin	$20.69	$24.90
Lisinopril 20 mg	$16.19	$97.90

Note: One-month supply shipping charges from Canada not included.
Source: U.S. Food and Drug Administration 2004.

Importation

Industry Standpoint

One of the hottest issues in pharmaceuticals is the possibility of seniors seeking cheaper medications from other countries such as Canada. To afford their medications, many people feel forced to bring cheaper medicines into the United States from other countries.

The pharmaceutical industry maintains that drug importation is illegal and is in violation of the Federal Food, Drug, and Cosmetic Act. The industry cautions against the importation of prescription drugs by consumers. Drugs manufactured outside the United States are not subject to the same FDA safety regulations. Therefore, there are no assurances that medications acquired from foreign pharmacies are chemical equivalents of U.S. medications. Sometimes the medications received from foreign pharmacies may be counterfeit. Because the FDA does not regulate these medications, there is no recourse for the patients who have been wronged by such a transaction. The online foreign pharmacies often have waivers that must be acknowledged by patients, stating that they have no recourse if they receive noncomparable medications through the transaction.

Not only can importation be unsafe, but the foreign medications are not always cheaper than U.S. medications. In general, generic medications are cheaper from U.S. than from foreign pharmacies.

Consumer Advocate Standpoint

The problem is obvious to consumer advocate groups, who cite numerous examples of seniors organizing bus trips and traveling hours to Canada or Mexico to buy their prescriptions. To consumer advocates, this practice shows that there is a major problem with the price of U.S. prescription medicines.

There is a certain trade-off that exists when a patient must look to other means to acquire his or her prescription medicines. Often, a patient may simply be unable to afford those prescriptions, and the only alternative other than importation is to not purchase, and therefore not take, the medicine that has been prescribed. This practice is, of course, very dangerous—and costly. One estimate is that $100 billion per year is spent on hospitalizations that could have been avoided had the patient properly taken his or her medication ("Potential Encapsulated" 2010). And, indeed, most patients recognize the danger; hence the interest in foreign pharmacies.

Another concern is that the FDA process for inspecting drugs is imperfect. The prescription drug Vioxx, for example, was associated with serious and sometimes fatal cardiac events in a small population of patients. Vioxx was an FDA-approved drug and had met all the requirements to be marketed. Some groups believe, in fact, that the FDA process is industry-friendly and that pressure from a company will hasten a product's approval. This makes the industry's argument against importation somewhat

suspect. Political resistance to importation in the United States is intense. European countries, such as Germany and England, do allow drug importation. In the United Kingdom, at least eight prescriptions under the National Health Service are filled by imports from countries such as France and Spain, where drug prices are cheaper. The practice has been estimated to save the government $130 million a year (Public Citizen 2001).

Though generic drugs may be somewhat cheaper in other countries, such as Canada, advocate groups point to the fact that, in many cases, branded prescription drugs (newer medicine that is still under patent protection) are significantly cheaper.

Price Controls

Industry Standpoint

Why do branded medicines cost more in the United States? Government-imposed price controls are one option to help control the cost of medication. Canada has imposed a countrywide price for each medication. Under this system, the price of medications is specifically regulated. The belief is that more patients have access to the best medications.

The pharmaceutical industry maintains that government restrictions would severely limit the research and development potential. One study shows that the United States accounts for roughly 70 percent of the world's new medical therapies (Clayton 2008). The industry points to the low percentages of innovation and new drug introductions in countries subject to price controls. From an industry standpoint, price controls are not the solution to improving access to the newest medications. The industry points out that prices are lower in countries with socialized medicine, a type of system repeatedly rejected by Americans.

BRANDED PRICE COMPARISON OF DRUGS IN THE UNITED STATES AND CANADA

Price of Drug	United States	Canada
Plavix	$397	$213
Lipitor	$214	$162
Actos	$542	$377
Zocor	$423	$231
Celexa	$281	$138

Note: Prices include medication and shipping for a three-month supply.
Source: International Medication n.d.

The industry believes that using medications is actually cost-effective for the consumer, because it prevents costly surgeries or other hospital care caused by a preventable event. For instance, paying for a high blood pressure medication is cost-effective when compared to paying for hospitalization following a heart attack caused by uncontrolled high blood pressure.

Consumer Advocate Standpoint

Advocate groups argue for price controls by showing the effectiveness that the U.S. government has in negotiating prices for medications for its veterans and military personnel. The government set a price for branded and generic drugs that companies must meet. This allows for every veteran and active soldier to have access to necessary medication. Advocates believe that the government can go one step further and institute this type of system for the country's seniors so that they, too, can have access to necessary medicine.

In comparison to other developed countries, consumer advocates show that the United States pays more for prescription drugs than any other country. In the United Kingdom, patients pay roughly 69 percent of the cost patients pay in the United States. The difference is the same for patients in Switzerland. Germans pay 65 percent, Swedes pays 64 percent, the French pay 55 percent, and Italians pay 53 percent (Public Citizen 2001).

Advocates point to the success of Canada's Patented Medicine Prices Review Board, which puts a ceiling on prices for all drugs. Many of the drugs purchased in Canada are purchased by the government. This allows access for low-income and elderly patients. This system is very similar to how the United States purchases medications for military personnel, but Canada implements controls on a much wider scale.

As for the argument that price controls stifle innovation, a recent study found that European pharmaceutical companies are just as innovative, or perhaps even more so, than their U.S. counterparts, despite the existence of price controls. In addition, some countries, such as the United Kingdom and Germany, encourage comparative-effectiveness reviews, whereby cost-benefit analyses are applied to rival drugs to determine which perform best. The market values of the drugs—that is, their prices—are then adjusted accordingly ("Reds under Our Meds" 2009). Supporters of the idea say that, if anything, it *encourages* innovation.

Profits

Industry Standpoint

The pharmaceutical industry is currently extremely profitable. The industry maintains that the high profitability is necessary to attract new investment for further research and development. For the year 2008, as with previous years, *Fortune* magazine ranked industries in terms of their profitability. The pharmaceutical industry ranks third on the

list behind network/communications equipment and Internet services/retailing (CNNMoney 2009). This represents a climb from the fifth spot just two years before.

The pharmaceutical industry, besides suggesting that profits are plowed back into research and development, cites examples of charity toward individuals in need of medication. It estimates that, in 2003, it distributed approximately $16 billion worth of free samples to U.S. physicians' offices (Greider 2003). This provided patients access to the newest treatments for all types of illness.

The industry further demonstrates acts of giving in Third World nations, where patients have no possible means of paying for such medication. In these cases, the industry freely dispenses the necessary medications to those in need. Instances of giving in times of disaster can also be found. Emergency shipments of medications have been sent to victims of the recent tsunami as well as to U.S. hurricane disaster victims.

The industry trade group PhRMA has presented figures that show that the cost of medicine is in line with the increases in overall health care spending. Pharmaceuticals accounted for only 11 cents of every health care dollar spent. In fact, PhRMA suggests that the overall cost of prescription drugs has remained roughly 10 percent of overall health care costs for the past 40 years (Clayton 2008).

Consumer Advocate Standpoint

Consumer advocates believe that pharmaceutical profits are a clear example of the excess that exists in the industry. The pharmaceutical industry consistently ranks among the top in terms of profitability. For a 10-year period ending in 2001, the industry was the most profitable in the United States and, on average, was five and a half times more profitable than the average of other Fortune 500 companies (McKinnell 2005).

The industry spends a tremendous amount of money to protect its interests as well. For instance, the industry in 2002 had approximately 675 lobbyists in Washington, DC, to promote industry-friendly legislation. This amounts to seven lobbyists for every U.S. senator (Public Citizen 2003).

Although the industry may at times be charitable, such charity, particularly in the case of U.S. patients receiving free samples from their doctors, is surely, say consumer advocates, a form of marketing or public relations. The motives of the industry in providing a small sample of what normally turns out to be a longer course of drugs, are hardly pure; in fact, calling it charity rubs many the wrong way.

Advocacy groups are, moreover, quick to identify what they feel is a much larger issue. The rate at which prescription costs have risen in the past two decades is alarming. Costs began to increase significantly in the 1980s, but, between 1995 and 2005, the rate of increase averaged 10 percent per year, becoming a much larger component of overall health care costs and greatly exceeding the rate of inflation (Congressional Budget Office 2008). Fortunately, there are indications that the rate has begun to decelerate in recent years, perhaps owing to technological advances.

Conclusion

The issue of prescription drug costs in the United States remains very complicated. In many cases, the information supporting either side can be confusing. For every study that promotes an industry stance, a consumer advocate group has information that argues just the opposite. The government is little help when trying to find answers to the problem of high medication costs. Both sides of the argument frequently cite studies from the National Institutes of Health to support their own viewpoints. Regardless, it is imperative that patients always have access to all medications. Pharmaceutical companies have various discount programs designed to assist financially struggling patients receive medicine at reduced cost. Some companies even give medications at no cost to patients who can prove that their situation leaves no way of paying for the medicine. Although these programs can be complicated and time consuming, they can help alleviate the burden of prescription drug costs until definitive research can be conducted to find permanent solutions to this problem.

See also **Health Care; Interest Groups and Lobbying; Off-Label Drug Use (vol. 4); Vaccines (vol. 4)**

Further Reading

Angell, Marcia, "Big Pharma, Bad Medicine: How Corporate Dollars Corrupt Research and Education." *Boston Review* 35 (May/June 2010): 7–10.

Angell, Marcia, *The Truth about the Drug Companies: How They Deceive Us and What To Do about It.* New York: Random House, 2004.

Archstone Consulting, and Lawton R. Burns, *The Biopharmaceutical Sector's Impact on the U.S. Economy: Analysis at the National, State, and Local Levels.* Stamford, CT: Archstone Consulting, 2009.

Avorn, Jerry, *Powerful Medicines: The Benefits, Risks, and Costs of Prescription Drugs.* New York: Vintage, 2005.

Clayton, Anne, *Insight into a Career in Pharmaceutical Sales,* 10th ed. Deerfield, IL: Pharmaceuticalsales.com Inc., 2008.

CNNMoney, "Fortune 500: Our Annual Ranking of America's Largest Corporations." May 4, 2009. http://money.cnn.com/magazines/fortune/fortune500/2009/performers/industries/profits/

Congressional Budget Office, *Technological Change and the Growth of Health Care Spending.* Washington, DC: CBO, 2008.

Engelhardt, H. Tristram Jr., and Jeremy R. Garrett, eds., *Innovation and the Pharmaceutical Industry: Critical Reflections on the Virtues of Profit.* Salem, MA: M&M Scrivener Press, 2008.

Families USA, *Profiting from Pain: Where Prescription Drug Dollars Go.* 2002. http://www.familiesusa.org/assets/pdfs/PPreort89a5.pdf

Finkelstein, Stan N., *Reasonable Rx: Solving the Drug Price Crisis.* Upper Saddle River, NJ: FT Press/Pearson Education, 2008.

GlaxoSmithKline, *The Value of Medicines: Beyond the Basics.* Brentford, Middlesex, England: GlaxoSmithKline, 2005.

Greider, Katharine, *The Big Fix: How the Pharmaceutical Industry Rips Off American Consumers.* New York: Public Affairs, 2003.

International Medication Program Price List, n.d. http://www.wecaremedicalmall.com/prices.htm

McKinnell, Hank, *A Call to Action: Taking Back Healthcare for Future Generations.* New York: McGraw-Hill, 2005.

PhRMA, *What Goes into the Cost of Prescription Drugs?* 2005. http://www.phrma.org/files/Cost_of_Prescription_Drugs.pdf

"Potential Encapsulated: Medicines That Can Talk to Doctors." *Economist* (January 14, 2010). http://www.economist.com/business-finance/displaystory.cfm?story_id = E1_TVNSGSPD

Public Citizen, *Rx R&D Myths: The Case against the Drug Industry's R&D "Scare Card."* 2001. http://www.citizen.org/documents/ACFDC.PDF

Public Citizen, *2002 Drug Industry Profits: Hefty Pharmaceutical Company Margins Dwarf Other Industries.* 2003. http://www.citizen.org/documents/Pharma_Report.pdf

"Reds under Our Meds: Could Health-Care Reform in America Stop Innovation in Pharmaceuticals?" *Economist* (August 27, 2009). http://www.economist.com/research/articlesBySubject/displaystory.cfm?subjectid = 531766&story_id = E1_TQPNSPPV

U.S. Food and Drug Administration, *U.S./Canadian Price Comparisons October 2004*. http://www.fda.gov

U.S. Food and Drug Administration, *From Test Tube to Patient: The FDA's Drug Review Process: Ensuring Drugs Are Safe and Effective.* n.d. http://www.fda.gov/fdac/special/testtubetopatient/drugreview.html

S

SEX AND ADVERTISING

Mary Beth Pinto and John D. Crane

Jean Kilbourne contends, "These days, graphic sexual images seem more extreme, more pervasive, and more perverse than ever before. Images that used to belong to the world of pornography are now commonplace in family magazines and newspapers, in TV commercials, on billboards, and online" (Kilbourne 2005).

Consider the words from "Poker Face," a popular song by Lady Gaga that topped the pop charts internationally in 2009 and won the 2010 Grammy Award for best dance recording:

> Russian Roulette is not the same without a gun
> And baby when it's love if it's not rough it isn't fun

Some might say that the lyrics sound more like a whispered conversation in a sex club or a scene from an X-rated movie than part of the opening verse of an award-winning pop song. U.S. culture is awash in sexually explicit content, and the music industry is just one example. All forms of the media are caught up in the sex craze. We live in what appears to be a sex-obsessed society, with rude language, nudity, and eroticism all around us. What was once the unexpected (in terms of acceptable content or language) has become the expected, and the expected has now become the norm. It is no longer necessary to read men's magazines like *Penthouse* or *Maxim* to see sexual imagery. Just surf the Web, turn on the TV, go to the movie theater, take a look at what teens are wearing, watch commercials, and look at print advertising.

Although the emergence of sex in advertising is not new, some of the controversies regarding it are. There are two basic issues surrounding sex in advertising: Does sex appeal work? In other words, does it really sell products and services? And has the use of sex in advertising gone too far? Should organizations limit their use of sexual images to sell their products and services, even if it does work? This chapter will explore both of these controversies.

Does Sex Appeal Work?

Yes

The use of sex appeal is not a new phenomenon in marketing. The blatantly sexual images depicted on walls in ancient Pompeii suggest that sex was used in public places to advertise various products ranging from food to baths to prostitution. (This is reminiscent of the explicit catalogs of "services available" that are distributed by hand and found in display cases along the streets of Las Vegas every night.) In ancient times, these public advertisements were not limited to "sin cities" like Pompeii, nor to just "sin services."

As early as Victorian 1850, marketers were using the opposite sex as eye-catching images to promote their products and services. According to Goodrum and Dalrymple (1990), "Full female nudity was introduced with a photograph…to illustrate a Woodbury Soap ad in 1936." Prior to that time, advertisers used sexual innuendo in copy by barely hinting at sexual images. Take, for instance, an advertisement for Iron Clad Hosiery from 1927. An attractive woman dressed in what today would be considered not very revealing undergarments seems to be caressing her "Iron Clad" ankle with an air of sensuality that is barely perceptible. The image is accompanied by the slogan, "The kind of beauty that thrills." In addition, the print in the ad notes the "mysterious quality which glorifies the wearer's own shapeliness and grace" that the hosiery offers. The image is less sexually suggestive than the copy of the advertisement (Goodrum and Dalrymple 1990).

Sexual appeal has been defined as "the degree of nudity or sexual explicitness found in visual, audio, and/or verbal elements of advertisements" (Gould 1994; Reichert and Carpenter 2004). It has long been accepted that sex appeals have stopping power, encouraging readers and viewers to stop, look, and listen. The "wow" factor of sexual appeals attracts attention to promotional messages, encouraging readers to notice specific messages out of the media clutter or barrage of stimuli to which they are exposed.

Nowhere has the stopping power of sex been used with more success than in the retailing industry. Consider Abercrombie and Fitch and its former quarterly publication called by many a "magalog." Although the company contended the publication was a catalog to showcase and sell its merchandise, most of the models in the magazine were nude or nearly nude. It should have made even the casual viewer wonder, "How can a retailer expect to sell clothes from a catalog when none of the models are wearing any?" The company and its magazine sparked public outcry with its depiction of teenage boys and

ABERCROMBIE AND FITCH

Picture a long, slender figure in the background of a very dark room. As you look, you notice that what you see is a male body with no clothing on. You begin to wonder, "Did I pick up the wrong magazine?" Trying not to draw attention to yourself, you slowly peer over the cover page and notice that indeed you are looking at a catalog—a clothing catalog, yet no one has clothes on.

The depiction is one that many young people have seen in the Abercrombie and Fitch quarterly catalog. Since the catalog's debut in 1997, its content has drawn regular protests. Items such as thongs for children with the words "eye candy" on them are just the beginning. In an effort to curb public criticism, the store placed the catalog in plastic bags and only distributed them through their online shop to consumers age 18 and older. Although their efforts were applauded, they decided in the winter of 2003 to pull the catalog from circulation.

Abercrombie and Fitch's financial state has been in jeopardy for some time. Market positioning and segmentation issues have plagued the company because of its racy appeal. Although racy appeal is commonplace in today's culture, the decline in profits for Abercrombie and Fitch brings about the question, Is it the racy content that the consumer is avoiding or the products themselves?

Sources: "Abercrombie to Kill Catalog after Protests over Racy Content." *Wall Street Journal* (December 10, 2003); DeMarco, Donna. "Abercrombie & Fitch Pulls Children's Thong." *Knight Ridder Tribune Business News* (May 23, 2002).

girls scantily clothed (if at all) in very suggestive poses. According to critics, "Not only did the magazine target teens, it did so in a sexual way…evident in the way the individual images in the magazine were staged" (Spurgin 2006).

No

Sexual imagery can also create problems and be counterproductive for marketers. It is widely accepted that sex appeal attracts attention, but studies show that it rarely encourages actual purchase behavior. Specifically, sexual images attract consumers to the ad but do not enhance the profitability of the brand or product. In some cases, sexual appeal has been shown to distract the audience from the main message of the marketer and interfere with comprehension, especially when there is complex information to be processed.

If marketers are going to use sexual images in ads, it is imperative that they know their audience, because several variables have been shown to play a role in the effectiveness of sexual appeals. For example, sex appeal seems to work differently for men and women and affect message comprehension and recall. Studies show that men often become so aroused by nudity used in ads that they have a hard time remembering components of the

actual message or what the ad was about (Schiffman and Kanuk 2007). Women tend to be attracted to ads that use elements of fantasy, love, and romance, whereas men are more attracted to appeals that use nudity (Anne 1971). In addition, age seems to be related to whether a viewer responds favorably or unfavorably to sexual appeals (Maciejwski 2004). Younger audiences are usually less offended by sexual images, although this too may differ by gender. In a study of college-age consumers, researchers found that men and women differ significantly in their assessments of sexual appeals. Advertisers must take care when using sexual imagery (especially featuring women) in ads targeted to female college-age consumers (Maciejwski 2004). What one person finds erotic, another person may find offensive.

The bottom line for marketers is synergy. Sex ads do not work for all products. Sexually oriented appeals may be a poor promotional choice if the product, the ad, the target audience, and the sexual images themselves don't all fit and complement each other (i.e., when the sexual images are unrelated to product claims, such as scantily clad women selling products for a hardware store).

Has the Use of Sex in Advertising Gone Too Far?

Most people agree that "the sexual ads that have drawn the most protest are those that exploit women as sex objects and those that use underage models in suggestive ways" (Duncan 2002). With the use of sexually oriented advertising comes scrutiny and protests by parents, legislators, and consumer activists—just to name a few groups. Consider the public furor over the FCUK brand from French Connection or the Janet Jackson and Justin Timberlake incident during the half-time show at the 2004 Super Bowl, when Jackson's breast was exposed to viewers. This so-called wardrobe malfunction resulted in months of debate about American core values and the role of the Federal Trade Commission (which is only one of several federal agencies that has jurisdiction over the monitoring of one or more aspects of advertising and marketing communication in the United States) in regulating live television programs (Elliot 2005). In the wake of this incident, a time delay has been placed on all live television programs.

People still talk about the Calvin Klein controversy of the mid-1990s, when the designer used young-looking models (albeit over 18) to star in his controversial jean ads. While many critics rated these ads as outright "kiddie porn," others contended that any PR is good PR (Lippe 1995). Some commentators compared these ads to the bare-bottomed toddler girl in the classic Coppertone ads, which are now viewed in a different way due to the current spotlight on pedophilia. The question remains: Was Klein just a wise businessman capitalizing on America's craving for sex? Are sexual images in advertising today just good marketing? On one side of the argument is the belief that "the chief aim of marketing is to sell more things, to more people more often for more money" (Danziger 2002). The bottom line is profit, and, therefore, the sole obligation of

FCUK

"FCUK like a bunny." Wait, was that . . . oh no, it's just a T-shirt from French Connection UK, circa 2001. After the creation of the acronym FCUK, French Connection came under a plethora of scrutiny. The parallels between their acronym and a word many find offensive is easily seen, but the use of this type of "gonzo" marketing tool is becoming more common. FCUK was heavily criticized publicly for the use of its label, and company profits eventually fell.

The negative reaction of public watchdog groups influenced consumers not to buy FCUK's products. However, governmental agencies did not see anything wrong with the label FCUK. In 2005, the United Kingdom patent office upheld the use of the French Connection acronym with arguments by lawyers that it is "completely mainstream." Although French Connection moved on to other advertising campaigns after discontinuing the FCUK campaign in 2006, it seems that this type of explicit language is commonly accepted as a functional aspect of culture.

Sources: Adapted from Lea, Robert. "Under-Pressure FCUK Kisses Ad Man Goodbye." *Knight Ridder Tribune Business News* (July 7, 2006); Rossiter, James. "Patent Office Decides that FCUK Doesn't Spell Trouble." *Knight Ridder Tribune Business News* (December 21, 2005).

the firm is to do whatever is necessary, within legal parameters, to maximize return on shareholder equity.

So, if sex sells more products, then sex in advertising is good for business. It sure has been good for a coffee stand in Seattle, Washington (Brady 1995). The owner has developed a special niche for his retail store, and business couldn't be better. He uses gorgeous women barely dressed in bras and panties to lean out the window to take orders and deliver coffee and sweet treats. According to the owner, anything is fair game as long as his employees' breasts and buttocks are covered so they aren't breaking the law. The business owners report few complaints other than long drive-through lines.

The alternative point of view says that organizations must look beyond the specific profit interests of the firm and consider their greater social responsibility. Is sex in advertising going against moral and ethical standards? Is it exploiting women? Has it turned "sex into a dirty joke" (Kilbourne 2005)? Are sexually oriented ads just outright distasteful and wrong? Or do they just reflect a culture in which "the heat level has risen, the whole stimulation level is up" (Brady 1995)? An additional concern is that the more sexual images that are used in the media and advertising, the more acceptable the extent of the sexuality that will become in future advertising. In other words, sexual images are now an expectation in the advertising of clothing, perfume, body lotions, and hair products. The laws regarding sexual harassment indicate that acceptable behavior should be defined by what a "reasonable woman" would consider acceptable behavior. As we

become socialized toward sexual innuendo and images, reasonable women will become more and more accepting of lewd behavior and images. This may up the ante for advertisers who feel continuously pressured to increase the "wow" factor and therefore increase the amount of sexual imagery they use.

As stated above, the unexpected in terms of sex appeal in advertising has become the expected, and now it has also become the norm. But the larger question is: Does that make it right? What are these graphic images teaching our youths? "That women are sexually desirable only if they are young, thin, carefully polished and groomed, made up, depilated, sprayed and scented" (Kilbourne 2005). At the opposite end of this spectrum, however, are new approaches to advertising, including the Dove theme suggesting that all women, regardless of their body type, are beautiful and desirable. Many advertisers are now using larger women as models. It has yet to be seen whether this is an improvement or simply an extension of the use of sexual imagery. In other words, if large and less traditionally attractive women are also presented as sexual objects, some might say that we are going backward instead of forward.

The women's movement has spent decades fighting for an equal place at the table (i.e., equal pay for equal work, fair treatment, and the elimination of the glass ceiling). Has the women's rights movement been a waste of time if we are still reducing women to nothing more than sex objects? We are teaching our youths (both boys and girls) to devalue the mental and spiritual aspects of a woman and focus exclusively on the physical.

For thousands of years, advertisers have used women as eye-catching images in their ads. At the start of the 21st century, this strategy continues full speed ahead. By modern standards, the images are raunchier, more explicit, and more widely employed. As a society, we get to decide where to draw the line. Therein lies another controversy—in a complex culture, which ones of us will make the decision? Will we turn off the TV, decide not to buy a product, or refuse to shop at a retail store that uses sexually explicit images in its advertisements? Regardless of our opinions about the use of sex in advertising, we ought to be concerned that private companies and their advertising agencies appear to be making those decisions now. We need to ponder the long-term effects on our culture.

See also **Marketing to Women and Girls; Obscenity and Indecency (vol. 3); Internet (vol. 4)**

Further Reading

Anne, C., "Sexual Promotion Can Motivate, Distract, Alienate, or Liberate." *Advertising and Sales Promotion* 19, no. 10 (1971): 52.

Associated Press, "Coffee Shops Show a Little Skin to Compete." *KOMO-TV- Seattle, Washington-News* (January 9, 2007). http://www.komotv.com/news/5402241.html

Brady, James, "Fueling, Feeling the Heat." *Advertising Age* (September 4, 1995): 1, 34.

Danziger, Pamela N., *Why People Buy Things They Don't Need.* New York: Paramount Market Publishing, 2002.

Duncan, Tom, *IMC: Using Advertising and Promotion to Build Brands.* New York: Irwin/McGrawHill, 2001.

Elliot, Stuart, "Emphasizing Taste, and Not Just in Beer, at Super Bowl." *New York Times* (January 26, 2005).

Goodrum, Charles, and Helen Dalrymple, *Advertising in America: The First 200 Years.* New York: Harry N. Abrams, 1990.

Gould, Stephen, "Sexuality and Ethics in Advertising: A Research Agenda and Policy Guideline Perspective." *Journal of Advertising* 23, no. 3 (1994): 73–81.

Kilbourne, Jean, "What Else Does Sex Sell?" *International Journal of Advertising* 24, no. 1 (2005): 119–122.

Lippe, Dan, "Readers Rate Klein 'Porn' Campaign." *Advertising Age* (September 4, 1995): 34.

Maciejwski, Jeffrey J., "Is the Use of Sexual and Fear Appeals Ethical? A Moral Evaluation by Generation Y College Students." *Journal of Current Issues and Research in Advertising* 26, no. 2 (2004): 97–105.

Reichert, Tom, *The Erotic History of Advertising.* Amherst, NY: Prometheus Books, 2003.

Reichert, T., and C. Carpenter, "An Update on Sex in Magazine Advertising: 1983 to 2003." *Journalism and Mass Communication Quarterly* 81, no. 4 (2004): 823–837.

Rutherford, Paul, *A World Made Sexy: Freud to Madonna.* Toronto: University of Toronto Press, 2007.

Schiffman, Leon G., and Leslie Lazar Kanuk, *Consumer Behavior,* 9th ed. Upper Saddle River, NJ: Pearson Education, 2007.

Spurgin, Earl W., "What Was Wrong with Abercrombie and Fitch's 'Magalog'?" *Business and Society Review* 111, no. 4 (2006): 387–408.

SOCIAL SECURITY

Lois A. Vitt

The American dream is about freedom and financial security. But it is possible to lose everything. One day a person has a job, a family, and a house. Then there is a layoff, an accident, an illness, or the death of a breadwinner. One misfortune piles upon another. As late as the 1930s (and even in the 1940s), a person with no income or savings and no children to take him or her in risked going to the "poorhouse."

By the time Social Security became law in 1935, every state except New Mexico had poorhouses. Sometimes called almshouses or poor farms, their existence is a little known fact in U.S. history today. Yet there were thousands of such places across the country, and becoming an inmate at a taxpayer-funded, county-run poorhouse was a fate to be dreaded (Altman 2005).

In the 1920s, the federal government sent volunteers to examine more than 2,000 poorhouses. The report came back that conditions were shameful (Gunderson and Julin 2002). A report by the New York State Commission on Old Age Security found that

"sick people are thrown together with the well…people of culture and refinement with the crude and ignorant and feeble-minded" (Altman 2005).

Then came the added toll from the nation's Great Depression. The stock market crash of Black Tuesday—October 24, 1929—shook America's very foundations. Banks failed, savings were wiped out overnight, homes and farms were lost in foreclosures. Twenty-five percent of all workers and 37 percent of all non–farm workers were unemployed. Financial gloom was everywhere, and people starved (Smiley 2010). Even with so much human misery in full view, passing the law that established Social Security was not an easy task.

Controversy surrounded the Social Security Act even as President Franklin D. Roosevelt signed it into law in 1935. Social security had been the product of several years of bitter controversy, negotiation, lobbying, and compromise. The debate had been widespread: from the Congress, big business, and the press to the workplaces and streets of America. One side believed, among other things, that the program was a "communist" one, and government could not be trusted to pay benefits properly, if at all. Supporters keenly felt the desperate need to protect older workers and their families against grinding poverty that had already struck millions of Americans upon retirement and was awaiting millions more (Landis 1997).

A New Kind of Insurance Program

President Roosevelt envisioned Social Security as a new kind of government program, uniquely suited to its mission of promoting both the work ethic and the dignity of older individuals and their families. It was established as *social insurance,* not public assistance, even though that is the way it was depicted by its detractors. The program was planned to provide a reliable retirement income to people at age 65. They would get no handout. Instead, workers would be required to contribute to their future retirement out of their current income and, by doing so, would earn the right to their Social Security pension.

On August 14, 1935, the day President Roosevelt signed the Social Security program into law, he explained his reasons for proposing it this way:

> Today a hope of many years' standing is fulfilled.…We can never insure one hundred per cent of the population against one hundred per cent of the hazards and vicissitudes of life, but we have tried to frame a law which will give some measure of protection to the average citizen and to his family against the loss of a job and against poverty-ridden old age. (Landis 1997)

Many people think of Social Security as merely a retirement program, but from the beginning it has been much more than that. In 1935, the insured events were retirement or death of workers, but they were expanded later to include the total disability of workers as well.

It is a comprehensive insurance program that provides protection for workers and also for their dependent family members. As with any type of insurance, Social Security buys working taxpayers protection against loss—specifically the loss of income in the following categories:

- **Retirement benefits**—for workers who retire from the workforce and have reached an eligible age (currently 62 years old for reduced benefits and 67 years old for full benefits).
- **Family benefits**—for family members who are dependents of workers who have become totally disabled or retire.
- **Survivors benefits**—for surviving family members of workers who die. Benefits are similar to life insurance.
- **Disability coverage**—for workers who become totally disabled and can no longer work even though they have not reached retirement age (Landis 1997).

Social Security is funded through dedicated payroll deductions under the Federal Insurance Contributions Act (FICA). These payments are formally deposited in trust funds to be paid out to workers when they reach retirement age or become disabled and can no longer work. The payroll tax rate is split between employee and employer, currently 6.2 percent of earnings for employees, and 6.2 percent for employers. The rate for individuals who are self-employed is 12.4 percent. These rates apply to wages up to and including an annual income (from wages) of $106,800. For income above that amount, there is no Social Security tax to pay.

In general, workers must make payroll contributions for 10 years or more to become eligible for a Social Security pension when they retire. Spouses are also covered, even if they have never worked. Benefits are based on a worker's average wage, calculated on the 35 years of highest earnings. When high-income earners retire, they receive higher monthly benefits, but not proportionately so. The idea is that benefits should be proportionately more for those with lower earnings than for those with higher earnings. The benefit formula under the Social Security system is weighted in favor of lower-income groups (Myers 2003).

How Social Security Has Performed

Social Security accomplished what President Roosevelt and supporters of the program hoped it would do, but not overnight. The first monthly benefit check was issued by Social Security to retired legal secretary Ida May Fuller, who received $22.54 in January 1940. In 1950, benefits were raised for the first time. In 1972, Congress enacted a law that allowed for cost-of-living adjustments to help the elderly cope with annual increases in the rate of inflation.

Before Social Security, the poverty rate among older adults was three times that of the general population. Economists estimate that, without Social Security, the elderly

poverty rate would have been 40 percent rather than the 9.4 percent it was in 2008. The current average monthly payment is $1,094 (Carr 2010).

The program significantly affects the lives of a majority of Americans. According to AARP, some of the basics reported as of July 2010 include the following:

- Monthly benefits are paid to about 54 million Americans.
- For 25 years, Social Security has received more in payments than it has paid out. It now has a $2.5 trillion reserve fund invested in government bonds.
- In 2010, the recession and high unemployment brought in fewer payments than anticipated, and Social Security has been drawing on its reserves.
- The Congressional Budget Office estimates that the reserve fund and payroll taxes will cover full payment of benefits for another 33 years.

Income security for the retired is not the only benefit successfully provided by Social Security; it also supports families struck by the death or disability of a breadwinner. Much like any private insurance, the Social Security program philosophy was to collect payments from workers and then pay a defined amount back to them (or their family) when certain events occur.

Social Security and the World Trade Center Disaster

In her book *The Battle for Social Security,* Nancy Altman tells the story of how Social Security employees worked to assist the survivors in the chaotic aftermath of the September 11 attacks on the World Trade Center. The story can serve as a case study of how the Social Security insurance system assists those eligible to receive family and survivors benefits under the program.

Two days after the attacks on the World Trade Center, the Social Security Administration went into action to identify and contact the family members of workers who perished in the attack. The task was to meet with employers and family members to help them secure the financial protection their loved ones had earned for them.

Altman writes that the Social Security Administration was among the first insurers to meet with employers and victims' family members. Its employees worked with the New York City Police Department, the New York City Fire Department, and the Port Authority to find the families of every firefighter and police officer who had died. They were present at the family assistance centers and set up a Web page to inform family members how to apply for benefits. By September 16, every major network affiliate in New York carried public information spots about Social Security.

Employees from the Social Security Administration distributed fact sheets to advocacy organizations and established lines of communication with local hospitals, unions, and other local organizations. They worked 15-hour days, seven days a week, to get benefits to spouses and dependent children as quickly as possible. They knew that they were throwing an economic lifeline to the families when they needed help

the most. On October 3, Social Security checks were mailed and electronically transferred to thousands of members of families who lost loved ones on September 11, 2001 (Altman 2005).

The Politics of Social Security Today

The struggle that surrounded President Roosevelt's efforts to pass the Social Security Act in 1935 as well as the process of enacting amendments that improved the program over the past 75 years still rages today. As before, much of the battle involves passionate emotions and clashing values about who we are and want to be as Americans:[1]

1. Are we a society where individuals look after themselves and are responsible for their choices and financial security no matter what might be happening in the business and financial sectors and the general economy?

   Or are we a society that can be independent and responsible for our own well-being while also contributing resources and sharing risks that can offset personal financial ruin during times of economic upheaval in the general economy?
2. Do we trust the unregulated business and financial communities to provide stable employment, disability coverage, and retirement pensions that will assure for us later-life financial security?

   Or can we support policymakers who will strengthen the Social Security program and continue to oversee both our own contributions and, more importantly, those of the nation's employers on behalf of working Americans?

The Controversies

Politicians and the media frequently warn that Social Security is headed for bankruptcy. Not true. The Social Security program is not a cause of the federal government's current deficit and debt concerns. In fact, the program has been running surpluses since 1984 (Gregory 2010). The federal General Fund experienced an annual surplus of $86 billion in 2000, meaning that taxpayers contributed more in all federal taxes than was spent in all federal programs and operations. However, that surplus fell year by year after 2000 because of tax cuts, funding for wars, and other government spending to a deficit of $1.55 trillion in 2009 (Congressional Budget Office 2010a).

By contrast, the Social Security program has amassed a trust fund reserve now amounting to $2.5 trillion (Board of Trustees 2009; Congressional Budget Office 2010a). In addition, the trust fund has been lending funds to the government that it would otherwise have had to borrow from national and international public markets. Moreover, Social Security trust fund reserves are expected to increase to $3.2 trillion by 2015 and to $3.8 trillion by 2020 (Congressional Budget Office 2010b) *unless* the decrease in contributions due to unemployment continues to erode the reserves required to meet

the growing surge of individuals who are reaching retirement age or are becoming disabled. Because the law requires 75-year solvency for the Social Security trust funds, and since numbers can be used to project future circumstances in different ways, no one can ascertain with any certainty what will happen over a 75-year period of time.

To summarize the important fiscal realities today, the Social Security reserve is being built primarily with:

1. FICA taxes paid at the rate of 6.2 percent of earnings by lower- and middle-income workers up to a maximum wage level of $106,800, plus matching FICA tax payments by employers at 6.2 percent of earnings. These contributions currently total 12.4 percent.
2. Interest paid on FICA taxes borrowed from the Social Security trust fund over the past 25 years to help finance the rest of government (Sloan 2009).

The long-term costs and paid-out benefits of the Social Security program are projected to rise with the increasing number of retirees from the baby boom generation during the coming years. This means that, in order to preserve the long-term viability of Social Security, certain actions must be taken by Congress. Suggested changes have included (a) increasing the maximum wage level on which FICA taxes are now paid; (b) increasing the age at which workers are eligible to receive retirement benefits from age 67 to (say) age 70; and (c) means-test the benefits so that only the poor receive benefits.

Arguments against these three proposed fixes are these: (a) at 12.4 percent, increasing the maximum wages to (say) $170,000 would be a large tax increase on an already ailing middle class; (b) increasing the age at which Social Security benefits may be obtained could be wrong-headed for anyone engaged in an occupation that involves physical activity; and (c) means-testing the benefits would be a terrible mistake that would violate the social compact that everyone pays Social Security taxes and everyone receives their benefits (Sloan 2009).

In the past decade, Republicans, along with a few Democrats, have campaigned for a radical restructuring of Social Security—namely, permitting workers to divert part of their payroll taxes from Social Security into *personal retirement accounts,* which could be invested in the stock market. The earnings on these accounts would replace a portion of Social Security benefits. This push to privatize has been a major conflict over Social Security.

Supporters of privatization argue that Social Security must be overhauled because its rate of return is dismal. In response, experts point out that comparing the rate of return on Social Security with that of an investment portfolio is "comparing apples and oranges" (Diamond n.d.). Social Security is not a portfolio, they say; it is insurance, which provides benefits in the event that a particular problem (e.g., disability) or condition (e.g., retirement) occurs. The opponents of privatization maintain that claiming Social Security's return is dismal is as meaningless as claiming that the return you get on your fire insurance premiums is dismal.

The heart of the battle over privatization may be more about profits for the financial markets and financial businesses than about individual freedom and collective responsibility. These values have an honored place in U.S. tradition and easily tap into the emotions of U.S. voters. One side sees a society in which individuals are responsible for their lives and are free to make their own financial decisions (Suellentrop 2005). On the other side, a deeply held value embodied in Social Security is that real freedom requires a nation to protect the well-being of its members against harm. Risks of unemployment, disability, changes in the general economy, and in the practices of businesses (e.g., outsourcing employment) are to be shared and insured against to the extent possible.

Conclusion: Speaking Out, Speaking Up

The bottom line is that many older workers who felt reasonably well positioned for retirement a few years ago now need Social Security more than ever. Middle-aged individuals who may have time to recover savings and home equity are needed more than ever to contribute to the future viability of the program. Employers' matching contributions are also required more than ever to sustain the Social Security system. Each of these social groups must also demonstrate to the nation's young adults that they will have a realistic plan for future benefits (Sloan 2009).

This is no time to overlook, dismiss, or ignore the continued performance of the nation's Social Security program, the social compact that helped to lift generations of older adults out of poverty and helped to close the nation's poorhouses. Failing to understand the real economics of the Social Security program can bring back the poorhouse for individuals who suffer through financial ruin that is not their fault—sudden unemployment, loss of pensions or savings or home. Doing nothing is not an answer either.

Worse, believing that "Social Security will not be there for me when I grow older," an opinion heard more and more frequently these days from younger Americans, might guarantee the untimely demise of this invaluable program, since one's voice to save it will not have been heard.

See also **Income Tax, Personal; Pensions**

Note

1. For this section and parts of the one below, the author wishes to acknowledge Arthur Benavie for his essay "Social Security, Medicare, and Medicaid" (published in M. Walden and P. Thoms, eds., *Battleground: Business,* Greenwood Press, 2007), which I have drawn upon here.

Further Reading

Altman, Nancy J., *The Battle for Social Security: From FDR's Vision to Bush's Gamble.* Hoboken, NJ: John Wiley, 2005.

Benavie, Arthur, *Social Security under the Gun: What Every Informed Citizen Needs to Know about Pension Reform.* New York: Palgrave Macmillan, 2006.

Board of Trustees, *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds.* Washington, DC: Social Security Administration, 2009. http://www.ssa.gov/OACT/TR/2009/index.html

Carr, Deborah, "Golden Years? Poverty among Older Americans." *Contexts* (Winter 2010). http://www.context.org

Congressional Budget Office, *Budget and Economic Outlook: Historical Budget Data.* Washington, DC: The Office, January 2010a.

Congressional Budget Office, *Combined OASDI Trust Funds March 2010 Baseline.* Washington, DC: The Office, March 2010b.

DeWitt, Larry, Daniel Béland, and Edward D. Berkowitz, *Social Security: A Documentary History.* Washington, DC: CQ Press, 2008.

Diamond, Peter A., ed., *Issues in Privatizing Social Security: Report of an Expert Panel of the National Academy of Social Insurance.* Cambridge: MIT Press, n.d.

Gregory, Janice M., *Testimony before the National Commission on Fiscal Responsibility and Reform on June 30, 2010.* Washington, DC: National Academy of Social Insurance, 2010.

Gunderson, Dan, and Chris Julin, "Poor Conditions at Poorhouses." Minnesota Public Radio, July 29, 2002. http://news.minnesota.publicradio.org/features/200207/29_gundersond_poorfarm-m/

Landis, Andy, *Social Security: The Inside Story.* Menlo Park, CA: Crisp Publications, 1997.

Livingstone, Steven Greene, *Social Security: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2008.

Myers, Robert J., "The Social Security Program of the United States." In *Encyclopedia of Retirement and Finance,* ed. Lois A. Vitt. Westport, CT: Greenwood Press, 2003.

Rogne, Leah, et al., eds., *Social Insurance and Social Justice: Social Security, Medicare, and the Campaign against Entitlements.* New York: Springer, 2009.

Sloan, Allan, "A Flimsy Trust: Why Social Security Needs Some Major Repairs." *Washington Post* (August 2, 2009). http://www.washingtonpost.com/wp-dyn/content/article/2009/07/31/AR2009073104214_pf.html

Smiley, Gene, "The Great Depression." In *The Concise Encyclopedia of Economics,* 2d ed., ed. David Henderson. Indianapolis: Liberty Fund, 2010.

Suellentrop, Chris, "George W. Bush. Philosopher King." *Slate* (January 17, 2005). http://www.slate.com

Vitt, Lois A., "Evaluating Program Outcomes in Financial Education." Unpublished manuscript, 2010.

Weinstein, Deborah, *The Recession Generation: Preventing Long-term Damage from Child Poverty and Young Adult Joblessness.* Washington, DC: Coalition on Human Needs, 2010.

SUPPLY CHAIN SECURITY AND TERRORISM

Peter B. Southard

The supply chain of any product consists of all the businesses involved in moving that product from the raw material stage into the hands of the final consumer. In addition to

the various manufacturers, suppliers, and retailers, it also includes transportation, storage, and distribution firms as well as the indirect resources such as finance, accounting, and information systems. All these companies—as well as the customer—are linked together to fulfill a customer's order.

One of the major themes dominating the recent thoughts of both supply chain managers and their suppliers has been the growing trend toward outsourcing and the use of international suppliers for raw materials, parts, and components. A second theme that has been dominating the thoughts of the same group as well as those of countries around the globe has been that of security from terrorist acts by individuals and groups. Unfortunately, the two themes are becoming more and more interrelated. This interrelationship has been underscored by the publicity surrounding the management and security control of ocean ports within the United States. A recent article in *CIO Magazine* suggested that the U.S. government will soon be requiring much more information on incoming foreign goods from firms that do business internationally. Specifically, the firms will need to provide information regarding not only the content of shipments prior to their arrival ashore but also the history of that content, points of origin, and routes of passage as well as who, specifically, has handled any shipments arriving in the United States from overseas. These requirements will undoubtedly increase the total costs of that material to the firm and also, since there is only a single true source of funds in any supply chain, to that source: the customer. Those costs are not just monetary in nature. They also include other aspects of a firm's competitive advantage and the customer's requirements, such as speed of delivery, flexibility, and reliability. These last costs can be significant when viewed in context with other recent business trends.

The move toward leaner production systems, such as those of Dell and Hewlett-Packard, where inventory levels are kept at a minimum, has meant lower costs with greater selection to the consumer. What it has also meant, however, is a supply chain that is much more vulnerable to interruption, because even a short delay in the shipment of components or raw materials could mean the shutdown of an entire production facility.

These supply chain challenges are not limited to the links of seagoing ports. The other three major modes of transport—air, truck, and rail—and their distribution and transfer centers are all experiencing the same pressures. A recent article in *Air Transport World* describes the preliminary measures and costs being felt by European air freight companies. They include the millions of euros being spent for the new equipment and organizational changes needed to meet the new industry requirements. U.S. trucking and rail associations are also exerting efforts and have developed an Anti-Terrorist Action Plan. Every mode of transport and every transfer point involved in the supply chain is coming under scrutiny. At this point, however, no mode is receiving focused direction from the government in terms of concrete requirements or policies, which means that all security initiatives are either in the pilot study phase, sitting on a shelf, or awaiting development.

CURRENT INITIATIVES

Customs-Trade Partnership against Terrorism (C-TPAT)

This is probably the best-known and most widely used antiterrorist security initiative. It is a voluntary program, begun in November 2001, between private global organizations and the U.S. government. It is administered through the Department of Homeland Security by U.S. Customs and Border Protection. Currently, the program offers expedited customs handling for participants. In return, the participants provide customs with information that indicates the company has performed security risk analysis on itself and its trading partners as well as ongoing best practices security measures. There are currently over 7,400 private participants. Further information can be obtained through the U.S. Customs and Border Protection Web site (www.cbp.gov).

International Ship and Port Facility (ISPS) Security Code and the Maritime Transportation Security Act of 2002 (MTSA)

The Maritime Transportation Security Act of 2002 (MTSA) is the U.S. response to the International Ship and Port Facility (ISPS) Code. ISPS is a 2002 code set out by the international maritime community delineating security requirements to be followed by all interested parties, including governments, shipping companies, and port authorities. MTSA is the U.S. version that was passed in 2004. Both have three levels of security based on the perceived security threat. Information is available at the Web sites of the International Maritime Organization (www.imo.org) and the U.S. Coast Guard (www.uscg.mil).

Automated Commercial Environment and Advance Trade Data Initiative

The Automated Commercial Environment is another U.S. Customs initiative. It is a trade processing system designed to provide the backbone of an enterprise resource planning system for Customs that will enable it to monitor its own processes and transactions. Its impact here is that it will also be used to analyze such things as risk factors in targeting containers for inspection. As an additional module, Customs has also been looking at the Advance Trade Data Initiative, which will be the data collection interface with importers. It will require importers to submit information regarding all shipments, such as the purchase order, ports through which the shipment has passed, final destination, and even where on the ship a particular container is located. This program may eventually become a requirement of C-TPAT.

CommerceGuard and RFID

CommerceGuard is a technology for securing cargo containers and is jointly held by GE Security, Mitsubishi Corporation, Samsung C&T Corporation, and Siemens Building Technologies. It consists of a relatively small device that magnetically clamps across the door of a cargo container and monitors both the door and the contents. It can record when and how many times the door was opened, temperature changes inside the container, and other information, as programmed. Visit www.commerceguard.com for additional information. Radio frequency identification (RFID) is a method of

(*continued*)

(*continued*)
identifying unique items using radio waves. Although it is not a new technology, it gained attention recently when Wal-Mart required many of its vendors to apply RFID tags to their goods. Different RFID technology can be used in varying applications, including determining and recording the temperature, light, and sound environment through which the RFID tags (and the goods to which they are attached) have passed. Various associations and committees are in the process of establishing standards for this technology.

The basic conflict faced by U.S. businesses is the security of goods entering the borders of the United States versus the cost of that security. The ramifications are twofold. First are the implications for competition: If a company can move its goods through security points and inspections faster and at a lower cost, then it has a competitive advantage. Second is the additional cost to the final consumer, who will ultimately bear the burden of the heightened security requirements.

This entry discusses the challenges associated with developing the necessary supply chain skills and infrastructure that will likely be needed in the future to minimize those costs. Specifically, it looks at new heightened security requirements from the perspective of their effect on the two major components of supply chain management: the supply chain strategy and the supply chain structure, which includes the drivers of supply chain performance. These four drivers are facilities, inventory, transportation, and information. Finally, it will look at tactics to facilitate that security.

Supply Chain Strategy

Hau Lee of Stanford University has developed a highly regarded framework for the strategic design of supply chains based on the variability, or risk, in both the demand for a product and the supply of raw materials, parts, and components to produce that product. As the variability of either dimension increases, the cost of designing and operating a supply chain increases, as does the complexity of managing it. Past terrorist attacks and threats have led to an emphasis on increased security, which, if randomly applied to incoming shipments, will increase the variability in acquiring upstream materials from suppliers. This variability may take the form of longer times waiting for inspections, the amount of time required for more thorough inspections, or even the availability of goods from certain points of origin.

The strategic design of the supply chain, based on demand variability, is to provide either efficiency through low cost or responsiveness through speed and flexibility. Either choice is affected by the time and cost created by added security.

The lowest-cost and least flexible chain is termed an efficient supply chain. At the opposite end of the spectrum is the agile supply chain. More and more, the two trends

of increasing competition and a more demanding consumer are forcing companies to move their supply chains toward the agile. By definition, this supply chain strategy requires shorter lead times, higher customer service levels, greater flexibility, and the ability to handle supply uncertainty. All of this agility, of course, comes at a cost; companies employing this strategy employ more expensive modes of transportation and maintain excess capacity to handle both supply and demand variation. While meeting the new specter of international terrorism will impose added costs, those on the agile end of the supply chain spectrum are more adapted to handle the variation.

Where the costs will have the most effect will be on the efficient supply chain. These supply chains operate on the basis of lowest cost created by very stable and predictable supply and demand. Staples such as food items and standardized commodities that operate on a very low margin fall into this category. Even a minimal increase in the cost of goods sold is felt immediately. Added variability in this supply chain strategy would be quickly translated into higher costs. The focus at both ends of the spectrum, then, will be to reduce the variability on either side of the supply chain in order to create and maintain a competitive advantage.

Finally, any supply chain strategy must include a contingency plan. The value of such a contingency plan was well illustrated by Dell during the West Coast dock strike of 2002. While other computer manufacturers were scrambling to find alternative sources for components that were being manufactured on the Pacific Rim or sitting idle during the 10-day strike while their parts sat on idle ships, Dell was able to continue operating with just 72 hours of inventory. Dell did all this without a single delay in customer orders. It was able to do so because it had previously developed an internal management team designed to handle such situations, close ties to various suppliers, and access to alternative transportation sources.

A firm's strategy determines how the supply chain must be structured in order to achieve that strategy. The strategy selected will necessarily have a major impact on the cost of securing that supply chain.

Supply Chain Structure and Drivers

The drivers of supply chain performance are facilities, inventory, transportation, and information. How these are organized and positioned within the supply chain establishes the structure of the supply chain. An agile supply chain will generally have more decentralized facilities and a distributed, standardized inventory in order to provide the most flexibility and to be located as close to the customer as possible. It will use faster transportation, which will result in higher costs per item. Information systems must be more robust and complex. What this means in terms of security is a more complex system to oversee and protect.

Facilities are the physical locations (land and buildings) where products are created, manufactured, assembled, or stored. The more agile the supply chain is, the more

facilities will be involved. The impact here will be both on the facilities themselves as well as the equipment necessary to meet the new security requirements. Part of this will likely be in the form of special radio frequency identification (RFID) tags or other similar electronic monitoring devices such as GE's CommerceGuard, which are attached to the products or the containers in which the products are stored. This means that specialized equipment will need to be present in the facilities to read the product devices, which becomes part of the facility cost. Other facility costs will be those necessary to secure the physical property itself, such as fencing, security personnel, and alarm systems.

Inventory consists of all raw materials, work in process, finished goods, and supplies held. There are four costs associated with inventory: holding or carrying cost, setup or changeover costs, ordering costs (which includes shipping), and the cost of stock-outs (not having the product when the customer demands it). The strategy and structure of the supply chain affect these costs. Reducing inventory reduces the holding costs but increases ordering costs (since more frequent orders are needed to meet the same demand) and vice versa. The more facilities the chain employs, the more inventory is needed to stock each location, increasing both holding and ordering.

Security against terrorism will mean that the stores of inventory being held will need to be more closely guarded and monitored, increasing the holding costs. As closer monitoring, tagging, and information requirements for each shipment increase, so do the ordering costs. RFID tags or other identification methods will be added to the cost, as will the labor and equipment needed to apply and read them.

Although the cost of shipping is usually accounted for under inventory costs, there are several decisions involved with this driver. These include the mode of transportation (air, truck, rail, or water), routing, and the network design (e.g., use of direct shipping, warehouses, cross-docking, or postponement). Since every additional link in the supply chain may mean an added security step or check, companies may be inclined to move more toward direct shipping, bypassing the intermediaries of warehouses, distributors, or even retailers. It may also mean an increasing use of third-party logistics companies so that a firm may hand off the responsibility for the security of a shipment to a company that specializes in logistics and is able to use economies of scale to absorb the additional costs of security.

Every security initiative under consideration at the current time will involve, at the very least, an increased requirement for information on the contents and history of all shipments entering or traversing the United States, whether this data will need to be supplied to U.S. Customs or another agency. These increased information requirements necessitate the need for new methods for collecting the data, more complex software to receive and organize it, and the hardware and peripherals on which to operate it. While the cost of RFID tags and the associated reader equipment is coming down, they still present a formidable outlay of capital, especially for smaller companies.

In addition, many of the initiatives under consideration involve the use of some type of tracking device attached to or inserted in each shipment. Some even call for identification of each item in that shipment. In either event, this would require reading equipment as well as software that will provide an interface between the equipment and the company's internal information system.

All this information will not only need to be maintained by the company, but it will also have to be forwarded to the appropriate government (and possibly industry) body in the format dictated by that group. Unfortunately, that standard has yet to be established.

Tactics

Tactics to address the impact of added security on the supply chain focus on the strategy and drivers. Strategically, firms must understand that regardless of whether they consider their products to be functional or innovative, their supply chains will need to maintain a higher degree of flexibility to remain competitive. In the paranoid environment in which businesses now operate, it takes little to disrupt a supply chain. A terrorist attack is not even needed. Take, for example, the closing of Port Hueneme in Ventura County, California. This major port was closed for hours because dock workers found a threatening sentence scrawled on the interior bulkhead of a ship coming in from Guatemala. Since this is one of the largest ports in the United States in terms of fresh produce imports, such a shutdown had the potential to create major problems. The case of the Alameda Corridor illustrates that it is not just facilities themselves that pose a risk in the supply

THE ALAMEDA CORRIDOR

The Alameda Corridor is a 20-mile multirail right-of-way that connects the ports of Los Angeles and Long Beach to the rest of the nation's rail lines. It was completed in 2002 at a cost of $2.4 billion. What is its significance for security in the supply chain? Consider this. Together, those two seaports handle more cargo traffic than any other port in the United States. Over one-third of all traffic entering or exiting those ports does so through the Alameda corridor. The heart of the throughway is a 10-mile-long trench that is 33 feet deep and 50 feet wide, which might appear to be an easier target than the 7,500 acres that the Port of Los Angeles occupies. Also consider the fact that most of the other two-thirds of that cargo traffic is carried in 6.3 million containers per year on the highways in the Los Angeles area, most of which travels on a single freeway: the 710, Long Beach Freeway. A terrorist attack would not necessarily need to pinpoint a port. Crippling access to any point of aggregation for shipments to and from U.S. businesses would effectively serve to close the port and seriously affect the economy. For more information on this vital artery in the U.S supply chain, access the Alameda Corridor Transportation Authority Web site (www.acta.org).

chain. Firms must be prepared for such events with alternative supply chain tactics that include having excess capacity in the drivers.

The drivers themselves must be more flexible and robust. Companies must have alternative transportation partners and modes, alternative facilities in terms of distribution or aggregation points, and alternative sources of inventory in terms of suppliers.

The form of the method will be in two areas: prevention and disaster recovery. Prevention will likely take the form of increased information requirements from companies about their shipments, increased inspections, and increased physical security requirements, such as monitoring and safety equipment. Exactly what prevention measure will be required will depend on the level of risk the company is willing, or able, to accept. How much it is willing to risk will be a corporate decision. How much it is able to risk will likely be a government or industry decision implemented by standards and regulations. Disaster recovery tactics will need to include preplanning efforts, a predesignated and well-trained team, and flexibility and alternative driver capabilities.

The added prevention measures and maintaining this flexibility in terms of alternate sources of strategies and drivers will cost money. Companies will tend to avoid costs for threats that have not yet materialized, because the added cost will, in the short run, put them at a competitive disadvantage. As Dell proved, however, in the dock strike of 2002, such upfront costs should be considered an investment that will pay dividends at a later time.

Somehow, these costs will filter down to consumers. It is the price to be paid for maintaining the amount and breadth of products that U.S. consumers have come to expect.

Conclusion

What is the final balance between security against terrorism and the price of that security? It is likely that the level of security will eventually be established by either government mandate or, even more likely, voluntary industry standards. That level will be a determining factor in the cost to us, the consumers. It may also mean that smaller companies—those without the capital resources necessary to acquire and maintain the needed equipment and procedures—may lose their ability to operate in a global environment unless they are partnered with a larger company that has that capability. But what that level may finally be, if indeed it ever is final, is now unknown. What is known, however, is that one business axiom will still hold true. Whichever companies manage to achieve that level at the lowest cost will create a competitive advantage. Early adopters and experimenters may be able to develop a sustainable advantage if their lower costs enable them to increase their market share sufficiently.

See also **Outsourcing and Offshoring; Aging Infrastructure (vol. 4); Airport and Aviation Security (vol. 4)**

Further Reading

Cook, Thomas A., *Managing Global Supply Chains.* Boca Raton, FL: Auerbach Publications, 2008.

Lee, Hau, and Chung-Yee Lee, eds., *Building Supply-Chain Excellence in Emerging Economies.* New York: Springer, 2007.

McNichols, Michael, *Maritime Security: An Introduction.* Burlington, MA: Butterworth-Heinemann, 2007.

Ritter, Luke, et al., *Securing Global Transportation Networks.* New York: McGraw-Hill, 2007.

Sweet, Kathleen M., *Transportation and Cargo Security: Threats and Solutions.* Upper Saddle River, NJ: Prentice Hall, 2005.

Thomas, Andrew R., *Supply Chain Security.* Santa Barbara, CA: Praeger, 2010.

SUSTAINABILITY

Robin Morris Collin

Sustainability literally means the capacity to endure. In 1987, the World Commission on Environment and Development, also known as the Brundtland Commission, applied the term to development—officially, *sustainable development*—as that which "meets the needs of the present without compromising the ability of future generations to meet their own needs." That definition was written into the Swiss federal constitution and is similar to the *seventh generation* philosophy articulated in the Iroquois Confederacy. It mandated that chiefs of that Native American nation must look seven generations into the future to consider the effects of their actions on their descendants before making a move.

The 1999 book *Natural Capitalism* recommends including four types of capital in any model for sustainable development: financial capital, manufacturing capital, natural capital, and human capital. Since then, many organizations added specific criteria as guidelines, including social criteria, environmental criteria, and financial criteria.

Sustainable Development

The concept of sustainable development hinges on ideas that support any practice placing equal emphasis on environment, economics, and equity rather than on economic interests alone. It is controversial, because it limits human activities in light of their environmental and equitable impacts on all affected communities.

Sustainable development assumes continuous economic growth without irreparably or irreversibly damaging the environment. Human population growth is difficult for this model, because it requires placing economic value on lives in the future. Some environmentalists challenge the assumption of growth at all. The fundamental battleground for this emerging controversy is one of values. The continued prioritization of economic growth over environmental protection, combined with population increases, may have irreparable impacts on the environment. British Petroleum's Deepwater Horizon

gushing offshore oil rig is one example of unsustainable economic development. The idea of sustainable development is a fundamentally different model of growth from the business model of colonial and industrial progress. It stresses equality in the distribution of benefits. This egalitarian model of development recognizes the economic burdens on society created by the oppressive policies associated with industrial capitalism and sovereign powers.

Additionally, the sustainable model requires governments to place constraints on developments, including constructing roads, bridges, and dams. It also focuses on new manufacturing methods. Sustainable development requires commitment to the principles and practices of clean production and manufacturing techniques rather than continued reliance on fossil fuels or other dirty energies to propel manufacturing.

Shifting models of development give rise to controversies that may involve problems of unequal opportunity for women and subordinated ethnic groups and the environmental impacts of the industrial use of natural resources. These controversies stem from the development policies and practices of an earlier age that did not require accountability for the social or environmental consequences of development. The changed model has been hardest to accept in the United States.

Global Background

In 1987, Gro Harlem Brundtland, then prime minister of Norway, authored a report for the World Commission on Environment and Development called "Our Common Future." In it, she described a concept of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." This has become the defining statement about sustainable human development. Sustainability focuses on fairness to future generations by ensuring that the ecosystems on which all life depend are not lost or degraded, and poverty is eradicated. Sustainable development seeks these goals of environmental protection and ending poverty by implementing several key concepts in development policies and practices.

The United Nations Conferences on Environment and Development have become the forums in which these key concepts have been turned into implementable policy statements. The agreements and statements resulting from these conferences are often identified by their host city. Perhaps the most famous of these conferences was the Earth Summit held in Rio de Janeiro in 1992. At this conference, the nations of the world, including the United States, agreed to implement seven key concepts to ensure sustainable development in a declaration called the Rio Declaration, and they wrote out a work plan called Agenda 21, which remains the source of much international controversy to this day. The seven key principles emerging from the Earth Summit and found in the Rio Declaration and Agenda 21 are:

1. Integrated decision making (three Es: environment, social equity, and economics)

2. Polluter pays
3. Sustainable consumption and production
4. Precautionary principle
5. Intergenerational equity
6. Public participation
7. Differentiated responsibilities and leadership

Another conference based upon this same United Nations Conferences on Environment and Development plan was held in Kyoto, Japan, in 1997, resulting in the Kyoto Protocol on climate change and the limits on emissions of greenhouse gases. Although a signatory to the protocol, the United States has not moved forward with ratification of the protocol even though it is the world's largest producer of carbon dioxide, because it disagrees with the exemptions given to developing economies like China and India.

The Copenhagen Accord, set in writing in December 2009, focused on planetary warming and cooling as a global issue requiring nations to work together to investigate ways of sustaining life on Earth. While setting emissions limits was central to the Copenhagen talks, no commitments resulted. Some news analyses of the Copenhagen gathering considered the accord a failure resulting from global recession and conservative domestic pressure in the United States and China. Despite financial woes, the voluntary-compliance Accord included a pledge by the United States to provide $30 billion to the developing world during 2010–2013, increasing to $100 billion per year by 2020.

Controversies for Businesses and Industries

Sustainable development often means designing pollution and waste out of the manufacturing cycle (industrial ecology) and thinking about a product in terms of its total life span, beyond its point of sale (also known as product life cycle management). Additionally, clean production may require a substantial investment in new technology and plants that is prohibitive to small business enterprises. These requirements challenge businesses and industries in virtually all sectors of an economy to change what they are doing and how they are doing it. What makes the task of change even harder is the fact that many established businesses and industries have been subsidized directly or indirectly through tax benefits conferred by national governments, which enhances the reluctance of businesses to change. But some businesses have pioneered change by embracing concepts of a restorative economy and natural capitalism.

Businesses that have taken short-term transitional losses to eliminate waste and toxins in their products and production methods have been rewarded in long-term economic gains and have created measurable improvements in their environmental impacts. These businesses have embraced the linkage between environment and economy, but they have not necessarily incorporated communities and their well-being into this new model.

Environmentalists

Environmentalists have documented the scope of environmental degradation all ecosystems are suffering as the result of human activities. The news they deliver is sobering. Human activity is threatening to cause the collapse of the living systems on which all life on our planet depends. This leads some environmentalists to advocate protection of the environment above all other concerns, including economic concerns and the needs of human communities. Trying to determine the causes for this dangerous state of the environment leads some environmentalists to identify population growth as the most substantial factor. Others point to the use of fossil fuels to propel our activities. Still others identify overconsumption of resources as the basis for this state of environmental degradation.

Environmentalists employing such data and using this type of formula often find themselves in conflict with business and industry as they press urgently for changes in manufacturing processes. Mainstream environmentalists tend to be from relatively privileged backgrounds in terms of wealth and educational opportunities. They frequently find themselves in conflict with communities and developing countries for their stands about population control and their relative indifference about the plight of the poor, who bear the costs of unsustainable practices more than any other class.

Communities

Communities and their physical and economic well-being are often excluded from decision making concerning economic opportunities and environmental consequences with which they must live. This exclusion can arise from structural separation between different administrative branches of government or from the separation between different levels of government. It can also arise from cultural and social forces that operate to exclude poor people or people stigmatized by historical discrimination. Exclusion of community interests and participation affects the viability and efficiency of efforts to protect the environment and to develop a community economically in several ways. People driven by insecurity regarding their basic living conditions are likely to accept employment opportunities regardless of the consequences to human and environmental health. This eliminates labor as an agent of change toward sustainable production technologies and allows continued pollution and waste to be externalized into the environment with long-term disastrous consequences for human health.

Moreover, people faced with exposure and hunger will also contribute to environmental degradation to meet basic life needs. Whether in a developed or a developing country, poverty and the inability to meet basic needs for food, shelter, and care make some human communities even more vulnerable to environmentally degraded conditions of work, living, recreation, and education.

Conflicts arise as these communities strive to participate in environmental decision making and decisions concerning the use of natural resources. These communities

INDUSTRIAL ECOLOGY

Industrial ecology is the shifting of industrial process from open-loop systems, in which resources and capital investments move through the system to become waste, to a closed-loop system where wastes become inputs for new processes. Robert Frosch and Nicholas Gallopoulos first proposed the idea of industrial ecology in an article published in *Scientific American* in 1989. They asked, "Why would not our industrial system behave like an ecosystem, where the wastes of a species may be resource to another species? Why would not the outputs of an industry be the inputs of another, thus reducing use of raw materials, pollution, and saving on waste treatment?" The idea of industrial ecology is to model this human-made system on the performance of those based on natural capital that do not have waste in them. The term *industrial ecology* was defined as a systematic analysis of industrial operations by including factors like technology, environment, natural resources, biomedical aspects, institutional and legal matters, as well as socioeconomic aspects.

Industrial ecology conceptualizes industrial systems like a factory or industrial plant as a human-made ecosystem based on human investments of infrastructural capital rather than reliant on natural capital. Along with more general energy conservation and material conservation goals, and redefining commodity markets and product stewardship relations strictly as a service economy, industrial ecology is one of the four objectives of natural capitalism. This strategy discourages forms of amoral purchasing arising from ignorance of what goes on at a distance and implies a political economy that values natural capital highly and relies on more instructional capital to design and maintain each unique industrial ecology.

are often not welcomed into dialogue at a meaningful and early stage and are forced to seize opportunities to participate in controversial ways. In the United States, the environmental justice movement has pioneered processes of public participation designed to ensure community involvement with environmental decision making. Internationally, the United Nations has developed the Aarhus Convention to assure such participation. Banks and other international lenders are beginning to require such community participation in development projects. For example, the World Bank now requires community participation and accountability to communities in its lending programs under the Equator Principles. Additionally, ethnically stigmatized groups, women, and those disadvantaged by informal social forces are striving to use these methods and others to participate in environmental and economic decision making. In the United States, these efforts are being developed through the environmental justice movement. Internationally, the United Nations supports efforts to build strong nongovernmental organizations through which these and other community interests can be effectively championed. The United Nations activities are being developed through the Civil Society initiatives.

Conclusion

There is a strong international and national push for a new kind of environmentalism that includes sustainable development. Like all the environmental policies before it, sustainable development policies will need to have accurate, timely, and continuous data of all environmental impacts to be truly effective. So far, knowledge needs about environmental impacts generate strong political controversies. In the United States, most of the industry information is self-reported, the environmental laws are weakly enforced, and environmental governmental agencies are new. Sustainability will be controversial because it will open old controversies like right-to-know laws, corporate audit and antidisclosure laws, citizen monitoring of environmental decisions, the precautionary principle, true cost accounting, unequal enforcement of environmental laws, and cumulative impacts.

The concept of sustainability has captured the environmental imagination of a broad range of stakeholders. No one group is against it, in principle. It is the application of the principle that fires up underlying value differences and old and continuing controversies. In many ways, the strong growth of the principles of sustainability represents exasperation with older, incomplete environmental policies. These policies now seem piecemeal, ineffective in individual application, and an impediment to collaboration with other agencies and environmental stakeholders. The new processes of policies of sustainability could be radically different than environmental decision making is now. Communities are demanding sustainability, some even adopting the Kyoto Protocol despite the United States' not signing it. They want to be an integral part of the process, especially as they learn about the land, air, and water around them. As environmental literacy spreads, so too will all the unresolved environmental controversy. It is these controversies that lay the groundwork for the functional advancement of U.S. environmental policy. Sustainability will require complete inclusion of all environmental impacts—past, present, and future.

See also **Cumulative Emissions (vol. 4); Environmental Impact Statements (vol. 4); Solar Energy (vol. 4); Wind Energy (vol. 4)**

Further Reading

Bernard, Ted, *Hope and Hard Times: Communities, Collaboration, and Sustainability.* Gabriola Island, BC, Canada: New Society, 2010.

Collin, Robin Morris, and Robert William Collin, *Encyclopedia of Sustainability.* Westport, CT: Greenwood Press, 2009.

Dernbach, John C., ed., *Agenda for a Sustainable America.* Washington, DC: Environmental Law Institute, 2009.

Frosch, Robert, and Nicholas E. Gallapoulos, "Strategies for Manufacturing." *Scientific American* 261, no. 3 (1989): 144–152.

Harris, Jonathan M., *A Survey of Sustainable Development: Social and Economic Dimensions.* Washington, DC: Island Press, 2001.

Maser, Chris, *Ecological Diversity in Sustainable Development: The Vital and Forgotten Dimension.* New York: Lewis, 1999.

Mazmanian, Daniel A., and Michael E. Kraft, eds., *Towards Sustainable Communities,* 2d ed. Cambridge, MA: MIT Press, 2009.

Rao, P. K., *Sustainable Development.* Oxford, England: Blackwell, 2000.

Riddell, Robert, *Sustainable Urban Planning: Tipping the Balance.* Oxford, England: Blackwell, 2004.

T

TRADE DEFICITS (AND SURPLUSES)

Raymond Owens

Trade is the basis of much of the economic activity we see around us. Most of our day-to-day activities involve trade. Examples abound—trading cash for food at the grocery store and trading our time and effort (working) for income. The government regularly accounts for the result of all this trading with quarterly readings on the pace of economic activity in the United States. In those reports, one category of trade is singled out. Trade with foreigners is highlighted and measured separately.

What Is So Special about Foreign Trade?

Essentially, we trade because doing so makes us better off. One of the first lessons we learn in economics is that we are not all equally proficient at the same things. For example, one person may be a better cook and another a better carpenter. Individually, one would be ill fed but well housed and the other well fed but ill housed. By trading services, each could—in theory, at least—be both well housed and well fed. The added benefits from trading make both better off.

So trading is good, because people engage in it only when it makes them better off. And we recognize the benefits of trade and economic activity within our borders. Every third month, when the latest report on the gross domestic product (GDP) of the U.S. economy is released, the nightly news blares the rate of growth over the airwaves. Politicians take credit or pass blame. Stock traders rejoice or moan. Bond traders take notice. A big increase in GDP suggests that production and trade among

Americans has increased, translating into stronger economic growth and cause for celebration.

But a big increase in trade with foreign interests is often met with far less enthusiasm. On the face of it, the reason is not apparent. As noted above, we only trade with others—domestic or foreign—if it makes us better off. This activity gives U.S. consumers more products from which to choose and products that are, in some cases, less expensive. The same is true for foreign buyers of U.S. goods and services. An increase in trade with foreign interests should be good news. So why not view it that way? Well, probably because if we buy more things from foreigners than we sell to them (as is usually the case), our measured economic activity tends to shrink. And lower measured economic activity in the U.S. economy is generally frowned upon.

In contrast, if we as a nation trade more with foreigners by selling them more than we buy from them, then more trade with foreigners is viewed as good because it raises measured economic activity in the United States.

So we generally view trade with other Americans as nearly always good but trade with foreigners as only good if we sell more to them than we buy from them. In other words, trade is not always viewed as good, even though both parties voluntarily engage in it, which presumably makes each better off.

Deficits, Surpluses, and Balance

As mentioned earlier, a lot of trade takes place each day, both among domestic residents and with foreigners. On the foreign trade front, domestic residents typically both trade their dollars for foreign goods and services (buy) and receive dollars from foreigners for U.S.-made goods and services (sell). If we buy more than we sell, we are said to have a trade deficit. If selling outweighs buying, a trade (or current account) surplus emerges. When buying and selling perfectly match one another, the result is balanced trade.

If voluntary trade makes parties better off, why separate foreign trade in the economic accounting, and why distinguish between deficits, surpluses, and balance? In a nutshell, trade with foreign interests is often viewed as having a dark side, in that sending more dollars abroad than we receive (a deficit) means some of our domestic consumer demands are met by foreign firms, which causes a drag on demand facing U.S. firms and reduces the demand for workers in the United States. Of course, consumers are made better off in that they have a broader array of goods from which to select. This benefit to consumers is widely recognized but typically is not publicized as a precisely measured benefit. Far more publicity is garnered by the estimated size and presumed costs imposed on U.S. citizens from trade deficits. A second concern is how long the U.S. economy can sustain trade deficits. Under the assumption that deficits create a drag on the economy, how much of a drag is required to slow the economy substantially? Let's address each of these questions in turn.

How Big Are Trade Deficits?

The U.S. trade balance is measured as the net difference between the dollar value of the goods and services we buy from abroad (imports) compared to the dollar value of goods and services we sell abroad (exports). In late 2009, exports were averaging almost $135 billion per month, seasonally adjusted. Imports at that time were over $165 billion a month.

As shown in Figure 1, it is clear that the value of both imports and exports is typically rising over time, recessionary periods excluded. This is not surprising given the diverse nature of goods produced in the United States, the prominence of the currency, and the well-developed infrastructure, which makes the physical transportation of goods (and services) relatively easy. But with the value of imports rising faster than exports, the U.S. trade sector is increasingly in deficit, to the tune of about $33 billion per month, or roughly $375 billion per year, according the most recent reports.

The United States has experienced trade deficits in recent decades, as shown in Figure 2. These deficits grew relatively large in 2006, reaching around 6 percent of the nation's economy as measured by GDP. However, with the sharp recession in 2008 and early 2009, the trade deficit moderated to about 3 percent of GDP. Even with this moderation, the current deficit remains sizeable and—if sustained or enlarged—is cause for concern. The mid-decade bulge partly reflected soaring prices of imported oil, and the moderation partly resulted from sharp declines in oil prices. With future oil prices uncertain, further improvement—or deterioration—in the deficit might be in the cards. Of course, the persistence of a negative trade balance has spurred discussion

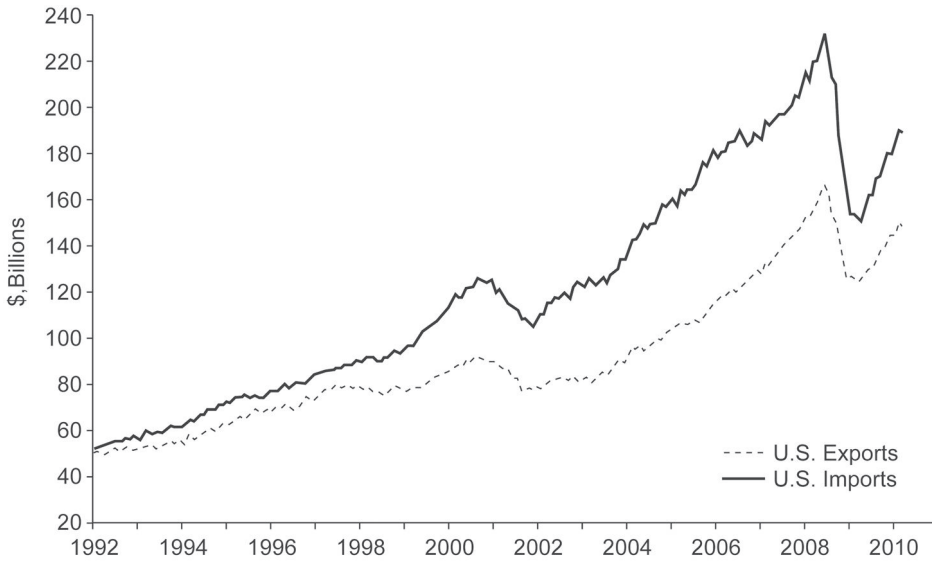


Figure 1. U.S. Imports and Exports (U.S. Commerce Department/Haver Analytics)

Figure 2. U.S. Trade Balance (U.S. Commerce Department/Haver Analytics)

over the drag these large trade deficits could potentially exert on the U.S. economy and the long-term consequences of this drag.

In part, deficits' impact on the economy depends on their causes. Since exports and imports—the two components of the trade balance—are measured in U.S. dollars, changes in the value of the dollar compared to the value of other currencies can affect the deficit's size. As of mid-2010, the dollar's value had strengthened compared to the values of the currencies of the United States' major trading partners. This made the price of U.S.-produced goods relatively less attractive than the prices of foreign goods. Initially, an increasing value of the dollar can potentially compress the measured trade gap, as foreigners pay more for U.S. goods and U.S. consumers pay less for foreign goods. This can occur especially when the volumes of the goods traded change little. Over time, however, the less attractive prices of U.S. goods would be expected to cool demand for our products, constraining U.S. export volume and possibly widening the trade gap.

Another reason the U.S. trade deficit may widen is that, as the United States emerges from recession, stronger demand for imported goods typically emerges. As incomes in the United States strengthen, consumers respond by ramping up spending, including spending on foreign-produced goods. Typically, this strength is not matched by foreign demand for U.S. goods—pushing the deficit deeper into negative territory.

Has Domestic Economic Activity Been Harmed by Trade Deficits?

It is difficult to assess whether trade deficits have affected the U.S. economy in a precise fashion (recall the earlier discussion of the arithmetic of consumer benefits, for

example). However, data from U.S. labor markets and trade accounts do not make a compelling case for a strong near-term relationship between a rise in deficits and a drag on U.S. economic activity—at least through the labor market channel. Since the early 1990s, for example, the trade deficit has generally grown markedly but has not trimmed domestic production enough to persistently raise the unemployment rate. As shown in Figure 3, there have been fluctuations in the unemployment rate since 1992, but the periods of large increases have been tied to recessions that were largely independent of foreign trade. In the early 1990s, a recession occurred after the real estate and stock markets unwound following run-ups in activity in each. In the early 2000s, a recession followed a reversal of the sharp increases in stock market prices in the preceding years. Most recently—in 2008 and early 2009—a deep recession occurred in the wake of an episode of home overbuilding and the attending difficulties in financial markets. Domestic demand for foreign goods softened more than demand for U.S. goods overseas. The trade deficit lessened, but again, because of the broader weakness in domestic economic conditions, unemployment soared.

In fact, the recent recessionary period aside, the unemployment rate has mostly trended lower throughout the period, with the tightest labor markets often occurring during times when trade deficits were on the rise. From this perspective, it is not at all obvious that running a trade deficit has led to a pronounced loss of jobs and higher unemployment in the overall economy.

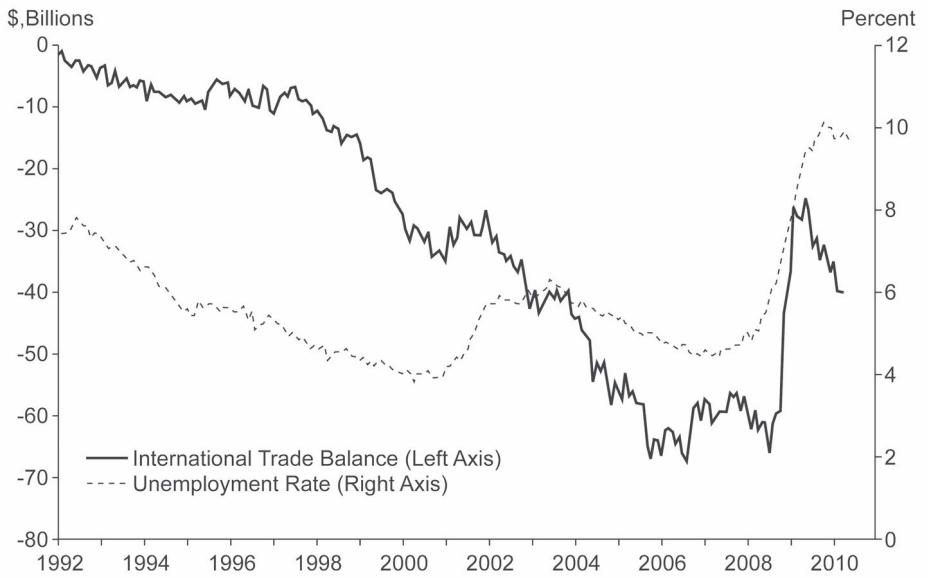


Figure 3. U.S. Trade Balance and Unemployment Rate (U.S. Commerce Department/Haver Analytics)

This is not to suggest, however, that trade deficits have had no impact on jobs in the United States. With the expanded global market in recent years, not only have global trade volumes increased, but the location of global production has been more dynamic. That is, firms have increasingly shifted their production among countries in an ongoing effort to contain costs and to match the location of production to that of emerging market demand. Through these channels, individual job categories in the United States have been affected. Jobs have declined in industries like textiles, for example, but have risen in other categories. This is textbook comparative advantage at work—with foreign producers making more of the world's fabric, U.S. producers can develop more pharmaceuticals.

What Do Trade Balance Figures Tell Us?

Broadly speaking, trade balance figures tell us very little, really. While trade figures imply that the United States consumes more foreign goods than it ships abroad, this interpretation is not particularly important, on balance. First, with well-functioning international financial markets, trade between nations has many implications that influence both the benefits and costs of the trade activity. The measures of trade flows (as imperfect as they are) are just one part of the story. Also important are the financial flows that result from the trade transactions.

When a domestic purchaser buys a good or service produced abroad, the purchase is an import. In this setting, the disposition of the dollars received by the foreign producer is important in determining the impact of the transaction on the U.S. economy. A foreign producer has several options with the acquired dollars: hold them (an interest-free loan to the U.S. government); exchange them for U.S. dollars on the foreign exchange markets (adding to the supply of dollars and pressuring the dollar lower); or invest them in dollar-denominated assets like a U.S. Treasury security or a factory in the United States.

In the first instance, we would like the foreign supplier to stuff its mattress with—or, better yet, burn—the dollars it receives. This way, we would get the goods or services from the supplier and would provide in exchange only paper bills (which cost our country little to print). By either destroying or otherwise not spending the dollar bills, foreign claims to U.S. goods or assets are relinquished. But this is not likely to occur very frequently, because trading of this type is not in spirit mutually beneficial to both parties. More likely, the foreign holders of dollars will delay spending or investing those dollars—while they hold the dollars, they earn no interest on them—effectively providing an interest-free loan to the United States.

In the second case, dollars received by foreign producers are exchanged for their home currency. With a trade surplus (from their perspective, since if we have a deficit, they must have a surplus), they receive a greater amount of dollars than we receive of their currency. To equate the currency amounts on the foreign exchange market, the

value of the dollar must fall relative to the value of the foreign currency. This makes goods and services priced in dollars more affordable, driving up the quantity of those goods demanded on international markets. But a falling dollar may jeopardize inflows of foreign capital into the United States and make dollar-denominated investments less attractive—but that's another story.

In the third instance, the foreign producer accumulates dollars to purchase assets valued in U.S. dollars. Toyota, Honda, and many foreign-based computer firms have large production facilities in the United States, for example, though most are invested in financial instruments. This is good, because these businesses create investment, tax revenues, and jobs here. But foreign investment in the United States leaves some uncomfortable. In the late 1980s, Japanese firms were purchasing farmland in the United States, which led to debate about the impact on the U.S. economy. More recently, some concerns continue to be voiced about who receives the profits on the investments. With global stock markets, we need not be too concerned. If a U.S. citizen wants the profits from a large foreign corporation, then stock in that company—and a share in its profits—is available for purchase.

In addition, in today's world economy, firms in the United States sometimes have operations overseas. Imagine that a furniture producer in the United States decides to open a factory in China. To open the plant, the U.S. firm buys enough Chinese yuan (the Chinese currency) to enable it to build the plant. But the output is shipped to the United States (a foreign import that tends to add to our trade deficit) and the profits are dollars, part of which the firm retains in the United States and part of which are converted to yuan to cover the continuing operating expenses of the plant. In this case, the trade gap has widened, but the Chinese have not substantially increased their claims to U.S. assets in the future.

Is this kind of activity important? In a word, yes. If we receive goods today and exchange only paper dollars, that's one thing. But if those paper dollars can potentially be redeemed for goods or factories or real estate in the United States at some future date, then that's another story, and we are a debtor nation, meaning we owe more money to foreigners than they owe us.

Much of the money we owe to foreigners is in the form of Treasury securities. The foreigners bought them, and we will have to redeem them one day. But is being a debtor nation necessarily so bad? As with many other aspects of trade and international finance, the answer is not crystal clear. One way to gauge the United States' net position as a debtor nation is simply to look at the income the nation earns on assets owned abroad compared to the payments made to foreign entities that own assets in the United States. Figure 4 shows that U.S. payments to foreigners soared in recent years, before pulling back with the 2008–2009 recession. But the chart also shows that, over the period, payments from foreigners have kept pace. In fact, the chart suggests relatively little reason to lie awake at night worrying about our status as a debtor nation.

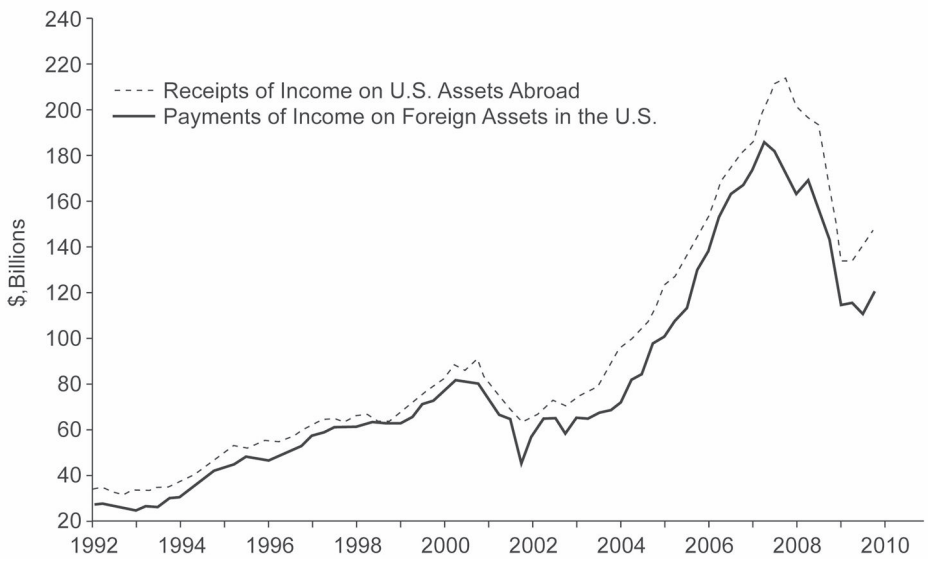


Figure 4. U.S. International Financial Payments. (U.S. Commerce Department/Haver Analytics)

What about Future Generations?

Much of the discussion here has focused on the near-term implications of the U.S. trade position. But critics point out that the impacts of today's trade actions may affect future generations. The argument is that trade deficits occur when society consumes more than it produces. This behavior, if left unchecked, will eventually leave the nation with large unpaid bills for the goods and services consumed. This is like dining out excessively on a credit card. These critics correctly note that to eventually pay off the debt, the country will have to sell off some assets, leaving the next generation with fewer assets and potentially reducing its ability to produce goods and services.

This argument is plausible and probably correct if sizeable trade deficits persist over a long period. But it is far from a foregone conclusion. For one thing, the trade deficit may fluctuate as energy prices rise and fall and the dollar rises and falls in value. But there is another consideration. Just as running up a credit card balance sometimes makes sense, so does running a trade deficit. Imagine that some large nations are ramping up production but still have a lot of underutilized capacity. For a time, the goods produced in these nations may be a bargain. In this case, taking advantage of the sale prices may be worth reducing one's asset holdings temporarily. Later, when assets are cheaper relative to consumer goods, the logical choice could be to accumulate capital goods relative to consumer goods.

Conclusion

This entry began by asking what all the fuss concerning foreign trade is about. If trade with your neighbor is good, then isn't trade with your neighboring nation also good?

The answer to this and other trade-related questions—unfortunately—is not clear-cut. While most agree that trade with other nations has many substantial benefits for the United States, measuring these benefits is difficult. In addition, many people are comfortable with trade as long as the value of exports exceeds that of imports—a trade surplus.

But aside from a surplus, the U.S. trade position with other nations often elicits mixed feelings. These feelings turn to concern as the trade balance moves deeper into deficit territory. Such movements have occurred in recent years, aside from the recent recession-related compression. But the general widening of the trade deficit has not resulted in especially troubling effects on the U.S. economy. Economic growth in the United States has fluctuated widely along with domestic housing activity in recent years, and labor markets have reflected those fluctuations. However, during some of this period, relatively long periods of solid economic growth and tight labor market conditions have occurred while trade deficits grew. There are no compelling signals yet that trade deficits are costing Americans jobs in the aggregate. In fact, labor markets were arguably becoming too tight in late 2007, as labor cost pressures emerged and complaints of a worker shortage were being heard.

In addition, concerns that trade deficits lead to outsized foreign ownership of U.S. assets and debt may also be a bit overblown. More of our assets are in foreign hands, but so too are we holding many foreign assets. On balance, earnings from those assets are about matching the interest and payments we make to foreign holders of U.S. assets.

In fact, as long as foreign interests want to hold more U.S. dollars, we can buy goods from abroad and foreign interests can get the dollars they want to hold. We want their goods, and they want our dollars. Their use of those dollars can have somewhat differing impacts on our economy, but no uniformly bad impacts appear to be occurring. We need to remember that consumers reap large benefits when they buy goods and services from foreign firms. But we can also increase trade deficits when our dollars flow to companies located abroad that are owned by U.S. parent firms. Such arrangements can offer these firms flexibility and profitability while containing the outflow of dollars that concerns some.

The bottom line may be that it does not matter so much with whom we trade. The real issue may be whether the United States is consuming more than it is producing. If we, as a society, persistently consume more than we produce, we will eventually have to draw down our accumulated wealth to pay for the excess consumption. Whether we transfer that wealth to another nation or to someone in our nation, the bottom line is that future generations will have a lower stock of capital, and that could, under some circumstances, constrain their ability to produce goods and services in the future. But this is not to suggest we are at or near that point. It is not obvious that we are consuming substantial amounts of our capital base or seed corn. In addition, eating some seed corn today may be reasonable if some categories of goods and services currently are a

bargain that is not expected to persist. So one possibility is to refocus the discussion to worry more about whether we, as a society, are properly balancing our consumption and savings and worry less about where production is located.

See also **Debt, Deficits, and the Economy; Dumping of Imports; Foreign Direct Investment; Free Trade**

Further Reading

Cline, William R., *The United States as a Debtor Nation.* Washington, DC: Institute for International Economics, 2005.

Dunway, Steven Vincent, *Global Imbalances and the Financial Crisis.* Washington, DC: Council on Foreign Relations, 2009.

Eisner, Robert, *The Great Deficit Scares: The Federal Budget, Trade, and Social Security.* New York: Twentieth Century Foundation, 1997.

Little, Jane Sneddon, ed., *Global Imbalances and the Evolving World Economy.* Boston: Federal Reserve Bank of Boston, 2008.

Preeg, Ernest H., *The Trade Deficit, the Dollar, and the National Interest.* Indianapolis: Hudson Institute, 2000.

U

UNEMPLOYMENT

Geoffrey Gilbert

When there are not enough jobs for everyone wanting to work in a particular city, region, or industry, economists look for the underlying causes, which can include technological change, rising resource costs, stiffer competition from imports, or a fundamental change in consumer preferences. Any of these may explain a localized gap between jobs offered and jobs wanted. At the national or macroeconomic level, however, unemployment generally cannot be traced to any single cause; rather, it is a feature of the business cycle. Every economy is subject to cyclical expansions and contractions. The U.S. economy, for example, has experienced 11 recessions since World War II, with the national unemployment rate topping 10 percent during 2 of them. (By comparison, at the depths of the Great Depression, unemployment reached 25 percent.) Unemployment takes an economic toll in terms of foregone output—goods and services that could have been produced if all available workers had held jobs. It also entails serious social costs for those out of work and for their families. Government can ease the financial burden of joblessness through such programs as unemployment insurance, job retraining, and tax credits for companies that hire new workers.

Four Types of Unemployment

Economists have described four different types or categories of unemployment. *Frictional* unemployment refers to the normal job switching that occurs in a market economy; at any given moment, there are bound to be some workers who are temporarily between

jobs. *Seasonal* unemployment refers to those who are out of work because of normal seasonal variations in employment. This can be seen in resort communities, where, for example, jobs may be plentiful during the winter in a ski town or during the summer in a seaside town but scarce during the rest of the year. Certain industries, like agriculture and construction, also exhibit high seasonal unemployment rates. *Structural* unemployment occurs when jobs disappear due to changes in the structure of the economy, as, for example, when companies move their operations overseas in order to lower their wage costs. Finally, *cyclical* unemployment is the type that rises and falls according to the overall condition of the national economy.

When the U.S. Bureau of Labor Statistics (BLS) announces the latest unemployment rate on the first Friday of each month, it does not distinguish among these four types. One may safely assume, however, that any large movements in the official unemployment rate are mainly due to the ups and downs of cyclical unemployment. The unemployment rate is inversely related to the national output rate, but it does not track it precisely. Unemployment is a so-called lagging indicator, meaning that when the economy starts to shrink, or go into a recession, it may take several months before the unemployment rate begins to rise, and when the economy hits bottom and starts to make a recovery, it may take some time before the unemployment rate begins to fall in response.

How Unemployment Is Measured

The BLS estimates the number of people unemployed in the United States by sampling the population rather than attempting to actually count every person who is looking for work and not finding it. The sample consists of 60,000 randomly selected households, representing about 110,000 individuals. Each month, trained interviewers check up on these households—some by phone and some in person—to determine their work activity in the previous month. Every individual who is 16 years of age or older is potentially a participant in the civilian labor force. Many, however, do not participate, including those who are retired, on active duty in the armed forces, in school full-time, totally disabled, institutionalized, or, for a variety of other reasons, not looking for employment. These individuals are not counted as part of the labor force. Only those who have jobs or are available for work and actively trying to find it get counted in the labor force, as defined by the BLS. The official unemployment rate is computed by dividing the number of people who are jobless but actively looking for work by the total number who are in the labor force. This fraction is then multiplied by 100 so that the unemployment rate can be expressed as a percentage.

An important group of people excluded from the labor force are those known as "discouraged workers." These are individuals who tell the interviewer that they want work, are available for work, have looked for work during the previous year, but are not *currently* looking for a job. They have become discouraged because they feel they have the wrong skills, are too young or too old, are likely to experience hiring discrimination,

or just do not fit the jobs that currently exist. Beyond this group of workers, who are discouraged for job-related reasons, there is an even larger group of workers called "other marginally attached," who say they are not job searching because of health problems, child care issues, or difficulties arranging transportation. These individuals say they want work and have looked for a job in the past year, but they have not looked in the past four weeks.

The most comprehensive measure of unemployment goes beyond what has just been described to include individuals who work part-time because they are unable to get the additional hours of work they would like. Under the standard BLS definition, a person who works for pay as little as 1 hour per week is categorized as employed, even though *under*employed would be a more accurate term if the worker would prefer to be working 10, 20, or 40 hours a week. Millions of workers in the United States can be described as holding their jobs "part-time for economic reasons," not by choice. When we take into account all the forms of subemployment outlined above, we get a much higher number than the conventional, and most widely publicized, unemployment rate. In April 2010, for example, the standard unemployment rate was 9.9 percent, while the broadest, most encompassing measure of underemployment stood at 17.1 percent. Both numbers were swollen by what some called the Great Recession of 2008–2010, yet even when the economy is in a healthier state, the gap persists. In April 2000, for example, the official unemployment rate was 3.8 percent, while the broader gauge of labor-force underutilization reached 6.9 percent.

The Uneven Impact of Unemployment

Americans experience unemployment in different ways and at different rates, depending on their age, gender, education level, and race or ethnicity. The monthly BLS unemployment report sheds light on all of these differences. For the month of April 2010, the unemployment rate for teenaged workers, ages 16 to 19, was a whopping 25.4 percent. This implied that for every four teenagers who were counted in the labor force (meaning they were either employed or looking for a job), only three were able to find work. For adults age 20 and older, unemployment was far lower, at a little over 9 percent.

Gender disparities in unemployment are much smaller than disparities by age. For most of the 2000–2010 decade, there was no consistent difference between men's and women's jobless rates. That changed near the end of the decade, however, as the economy fell into recession. More jobs were lost in male-dominated occupations, like construction and manufacturing, than in the rest of the economy, causing men's unemployment to rise faster than women's. In April 2010, the rate for all men age 16 and older stood at 10.8 percent, compared to 8.8 percent for women. If teenaged workers were excluded, the rates were 10.1 and 8.2 percent for men and women, respectively.

Education strongly influences one's chances of being unemployed. More highly educated Americans experience less joblessness than those with fewer educational

credentials. The April 2010 figures were illustrative. Among workers aged 25 or older, those lacking a high school diploma had a 14.7 percent unemployment rate. The comparable rates for those with a high school diploma but no college, those with some college or an associate's degree, and those with a bachelor's degree or higher were 10.6 percent, 8.3 percent, and 4.9 percent, respectively. The advantage enjoyed by those with more education can also be seen in their higher rates of participation in paid work. Fewer than half the individuals who lacked a high school education participated in the labor force in April 2010. Those with more education had higher participation rates. College graduates, for example, participated at a 77.3 percent rate.

Race and ethnicity also affect one's likelihood of being unemployed. Historically, African Americans have been jobless at higher rates than whites or Hispanics. In April 2010, the black unemployment rate stood at 16.5 percent, compared to 12.5 percent for Hispanics, 9.0 percent for whites, and 6.8 percent for Asians. When high-unemployment categories overlap, the resulting unemployment rates can be extraordinarily high. In December 2009, for example, the unemployment rate for black teenagers (ages 16 to 19) reached an astonishing 48 percent. (For white teens, the rate was a little under 24 percent.)

Short- and Long-Term Unemployment

The longer a person remains without work, the deeper the impact on finances, family well-being, sense of self-worth, and even health. Some workers are out of a job so briefly they do not even bother to file for unemployment compensation. At the other extreme, some workers spend long months and even years looking in vain for work. Workers who lose their jobs in middle age can be especially devastated, since they often shoulder heavy financial responsibilities and do not have time to start a new career in the working years they have left.

During the recession of 2008–2010, observers noted a considerable increase in the amount of time workers typically spent unemployed. So not only were there an unusually large number of people out of work—even for a recession—but they were staying unemployed much longer than usual. Data from the BLS showed that, in April 2010, more than three-fifths of the unemployed had been out of work for 15 weeks or more, and fully 46 percent met the definition of "long-term unemployed" by being out of work for more than six months. The median period spent unemployed was about 22 weeks, meaning that as many people were unemployed *longer* than 22 weeks as were unemployed for *less* than that length of time. In historical data going back to 1967, there is nothing comparable to this figure; only once previously had the median length of unemployment even reached 12 weeks (in March 1983).

The social consequences of unemployment are manifold. The unemployed face a greater risk of clinical depression, hospitalization, and other adverse effects, as studies have shown in the United States and abroad. The damage can be straightforwardly

physical: a study conducted under the auspices of the Harvard School of Public Health showed that even short periods of unemployment lead to more diagnoses of high blood pressure, heart disease, and diabetes (Strully 2009). A Swedish study found that individuals experiencing unemployment face higher mortality risk, partly due to increased rates of suicide (Gerdtham and Johannesson 2003). It has also been shown that domestic violence, divorce, and child abuse increase when fathers are unemployed (Schiller 2008, 91). Given the well-established physical and mental health consequences of unemployment, it should hardly come as a surprise that unemployment has also been linked, in a British study, to lower levels of happiness. Somewhat less expected were the findings that unemployment produces less unhappiness among the young, among those who have been unemployed for longer periods of time, and in those regions where the overall unemployment rates are high (Clark and Oswald 1994).

"Natural" Unemployment, the Phillips Curve, and Okun's Law

At various times from the 1960s onward, economists in the United States have offered opinions about the rate of unemployment that should be considered normal or "natural." If the actual unemployment rate fell below this natural level, it would signal an overheated economy likely to be experiencing inflation. If it rose above the natural level, it would signal slack in the system, suggesting that the economy was performing below its potential. The cumbersome, technical term for the natural rate of unemployment is *nonaccelerating inflation rate of unemployment,* or NAIRU. Economists have tried to determine what the natural rate of unemployment would be in a given economy. For the United States, some thought 4 percent, some 5 percent, some even thought 6 percent unemployment might be the natural level. To date, no consensus has emerged, and in fact the search for the true NAIRU appears, for now, to have been suspended.

Implicit in discussions of NAIRU was the assumption that for any given economy there was a stable relationship between unemployment rates and inflation rates. Empirical research in the 1950s and 1960s appeared to support this notion. Soon economics students were finding something new in their principles textbooks—the Phillips Curve, which graphed an inverse relationship between the inflation rate and the unemployment rate. The Phillips Curve seemed to offer policymakers the possibility of choosing from a variety of inflation–unemployment combinations. If they wanted to lower the unemployment rate, the cost would be higher inflation; if they wanted to lower inflation, the cost would be higher unemployment.

In the same era that produced NAIRU and the Phillips Curve, another empirical relationship involving unemployment was put forth: Okun's Law. Named for the economist Arthur Okun, this law posited a stable inverse relationship between changes in the unemployment rate and the economy's real growth rate. Growth in this case referred to increases in the real, inflation-adjusted gross domestic product, or GDP. Okun's Law builds on the obvious fact that, if national output is to be increased, more labor will

have to be employed, and that will reduce unemployment. A widely accepted version of Okun's Law states that, for every 2 percent growth in GDP above its long-term trend rate, unemployment falls by 1 percent. For example, if the long-term GDP growth trend is 3 percent and GDP actually grows by 5 percent, the unemployment rate would be expected to fall by 1 percent. (In this example, therefore, if unemployment had previously been 6 percent, it would fall to 5 percent.) As with the Phillips Curve, Okun's Law has fallen into disfavor among most economists; neither appears to have strong enough empirical underpinnings to be relied upon as a macro policy tool.

Unemployment Insurance

When workers lose their jobs not through any fault of their own but because their industry—or the entire economy—is going through a cyclical downturn, most people believe they need and deserve some kind of temporary financial assistance from the government. Such was not always the case. Historically, state assistance to the unemployed could not be legislated as long as the public viewed joblessness as a matter of individual responsibility. During the periodic depressions that characterized the 19th century, even private charity for the unemployed was sometimes decried as "pauperizing"—that is, liable to turn temporary hardship into permanent dependency. But gradually opinion shifted toward a more positive view of public responsibility to aid the jobless, whether in the form of emergency public relief programs during times of mass unemployment or through employment bureaus operated by cities and states on a model borrowed from Great Britain. (Such bureaus could be found in more than half the states by 1915, according to Roy Lubove 1968.)

Compulsory unemployment compensation plans began to be introduced into state legislatures during the 1920s, but only Wisconsin enacted a program before Congress passed the Social Security Act of 1935. Under that landmark law, all states must operate unemployment insurance (UI) programs. The features that are common to all state programs are: UI applicants must have some work experience; they must have lost their jobs through no fault of their own; and they must be ready and willing to work. Benefit levels vary widely and generally make up only a fraction of the worker's normal wage income. The benefits paid during the standard 26-week period of eligibility are financed out of state payroll taxes. In times of unusual economic distress, Congress can authorize a 13-week extension of UI benefits, in which case the funding is shared by the states and the federal government.

The common view that almost any unemployed person can collect unemployment benefits is far from true. Of those counted as unemployed by the BLS at any given time, only about one-third are able to receive unemployment compensation. The jobless who are just entering the labor force—college graduates, for example—or who are reentering the labor force after a period spent out of work are ineligible to receive UI benefits. Also ineligible are those who have been dismissed for cause from their jobs.

Unemployment and Poverty

The correlation between unemployment and poverty in the United States is not hard to understand. When the economy goes into a recession and jobs are lost or hours are cut, families that had been managing to stay just above the poverty line can easily drop below it. When the economy recovers and laid-off workers go back to work, many families have a chance to earn their way out of poverty. A graph showing the trend lines for unemployment and poverty in the United States from 1960 to 2004 strongly confirms the correlation between these two rates (Schiller 2008, 99). The data since 2004 offer further confirmation. Poverty rates stayed in the 12 percent range from 2004 to 2007, while the unemployment rate trended downward from 5.6 to 4.4 percent. But in 2008, as the recession got under way, the poverty rate shot up to 13.2 percent—its highest level in more than a decade—while the unemployment rate also rose significantly. Poverty statistics are never released in as timely a fashion as the monthly unemployment statistics, but it is a safe bet that, when the poverty rates for 2009 and 2010 are released, they will mirror the dramatic increases seen in the U.S. unemployment rate during the recession.

The Political Economy of Unemployment

People have very different takes on what, if anything, should be done about unemployment and the hardships it produces. Those on the conservative end of the spectrum have long argued that unemployment is an inevitable feature of the dynamic capitalist economy. The 20th century's most outspoken advocate of free enterprise, Milton Friedman, asserted in *Capitalism and Freedom* (1962) that severe unemployment was almost always the result of government ineptitude, not ordinary business cycles. He also blamed some unemployment on minimum wage laws, which, therefore, he wanted to see abolished. At the other (left) end of the political spectrum, radical thinkers from Marx onward have depicted unemployment as both a systemic and a necessary feature of capitalism. Periodic bouts of mass unemployment, in their view, serve to weaken labor unions, restrain wages, and bolster corporate profits. In Marx's view, capitalist crises could be expected to not only continue but grow in intensity, cutting into production and expanding the "reserve army of the unemployed," until at last the working classes threw off their shackles and seized control of the system.

The centrist view of unemployment since the Great Depression has been to see the macro economy as subject to periodic (though not worsening) downturns, which the government can moderate but not eliminate. Unemployment is therefore accepted as a fact of the modern mixed economy. By a proper use of fiscal and monetary tools, economic fluctuations can be held within acceptable bounds, and unemployment insurance—part of a broader safety net—can keep the consequences for individual workers tolerable. It would be hard to find a prominent conservative or libertarian thinker today who would advocate abolishing the UI system that Americans have had since 1935. Debate about how best to help the unemployed centers instead on where the benefit levels should be

set and how long the unemployed should be able to collect their benefits. If benefit levels are set too low, the safety net will not meet the basic test of adequacy. There may be another problem as well: low benefit levels will tend to cause the unemployed to shorten their job searches and accept the first job that comes along, even if it does not make appropriate use of their human capital. The end result is inefficiency in the economy. If benefit levels are set too high, it allows workers to extend their job searches beyond what would otherwise be the case. This, too, can be a source of economic inefficiency and waste.

See also **Consumer Credit and Household Debt; Labor, Organized; Minimum Wage; Poverty and Race**

Further Reading

Clark, Andrew E., and Andrew J. Oswald, "Unhappiness and Unemployment." *Economic Journal* 104, no. 424 (May 1994), 648–659.

Friedman, Milton, *Capitalism and Freedom.* Chicago: University of Chicago Press, 1962.

Gerdtham, Ulf-G., and Magnus Johannesson, "A Note on the Effect of Unemployment on Mortality." *Journal of Health Economics* 22, no. 3 (May 2003), 505–518.

Lubove, Roy, *The Struggle for Social Security, 1900–1935.* Cambridge, MA: Harvard University Press, 1968.

Schiller, Bradley, *The Economics of Poverty and Discrimination,* 10th ed. Upper Saddle River, NJ: Pearson Prentice Hall, 2008.

Sharp, Ansel, Charles Register, and Paul Grimes, *Economics of Social Issues,* 19th ed. New York: McGraw-Hill/Irwin, 2009.

Strully, Kate W., "Job Loss and Health in the U.S. Labor Market." *Demography* 46, no. 2 (May 2009), 221–246.

"Symposium: The Natural Rate of Unemployment." *Journal of Economic Perspectives* 11, no. 1 (1997): 3–108.

U.S. Department of Labor, Bureau of Labor Statistics, "How the Government Measures Unemployment." http://www.bls.gov/cps/cps_htgm.htm#where

U.S. Department of Labor, Bureau of Labor Statistics, "Economic News Release: The Employment Situation—April 2010." http://www.bls.gov/news.release/empsit.nr0.htm

W

WAR AND THE ECONOMY

Lee A. Craig

The link between war and the economy is an ancient one. More than 2,000 years ago, Cicero observed, "*Nervo belli, pecuniam infinitam*"—the sinews of war are money in abundance (Cicero 2003)—and war has often been viewed as an avenue to economic prosperity. A leading economic history textbook has a chapter entitled "The 'Prosperity' of Wartime" (Hughes and Cain 2010), and World War II has become the standard explanation for the end of the Great Depression: "It has long been an article of faith that the Second World War brought an end to the long depression of the thirties" (Smiley 1994). In his Pulitzer Prize–winning history of the era, David M. Kennedy notes that "the war compelled government spending on an unexampled scale, capital was unshackled, and the economy energized." He concludes: "Ordinary Americans…had never had it so good" (Kennedy 1999). In the run-up the to the U.S. invasion of Iraq in 2003, Senator Robert Byrd accused President George W. Bush of using the war as a means of addressing "weaknesses in the economy [and] jobs that are being lost" (Nyden 2002).

Despite the unambiguous tone of these observations, opinions on war's impact on the economy are hardly unanimous. The great Austrian economist Ludwig von Mises attacked the very notion of wartime prosperity: "War prosperity is like the prosperity that an earthquake or a plague brings" (Higgs 1992). While economists, historians, and politicians debate the point, generals seem less divided. Douglas MacArthur emphasized war's "utter destruction," and William Tecumseh Sherman famously said of war that "it is all hell" (MacArthur 1951). Tellingly, neither emphasized war's prosperity.

What is the supposed link between war and economic prosperity? How might a war lead to prosperity? Why did Mises equate wartime prosperity with that of a natural disaster?

Grasping the Problem

Calculating the cost of war presents economists and historians with a challenge. There are the direct costs—largely government expenditures on material, which are easy enough to track—and there are also indirect costs, which, although just as important in an economic sense, are less easily quantified. Take, for example, the lost economic production that results from a war-related death. We do not know exactly how much output the dead individual would have contributed to the economy over the course of his or her life; neither do we know exactly what the present market value of that worker's future output would be. After all, the value of a dollar today is not the same as the value of a dollar 10 or 20 years from now. However, because the fact that a topic is difficult does not mean we should avoid it. Economists regularly estimate the future productivity of individuals—for example, those injured or killed in automobile accidents—and they calculate the value today of future income streams, which also happens to be the foundation of the thriving business in annuities. If one applies these techniques to the estimation of the direct and indirect costs of war, some interesting figures emerge.

For example, during the Civil War, the United States government directly spent $1.8 billion, while the Confederate states spent $1.0 billion (in 1860 dollars). Estimates of the indirect costs of the war are in the neighborhood of $1.6 billion for the United States and $2.3 billion for the Confederacy (Goldin 1973). Thus, the combined costs of the war were $6.7 billion ($3.4 billion for the North and $3.3 billion in the South). With a total U.S. population of roughly 35 million, it follows that the war cost about $50 per person per year, during its four years.

To put these figures into perspective, consider that the cost of purchasing the freedom of the entire slave stock in 1860 would have been $2.7 billion, or about 40 percent of the war's actual cost. Financed by the issue of 30-year U.S. treasury bonds at 6 percent interest, this option would have cost the northern population $9.66 in taxes per person per year. Indeed, depending on which groups were taxed to pay off the bonds, the payments would have been considerably less than this. Given that annual income per person at the time was around $200 dollars, the tax rate would have been less than 5 percent—a fraction of the current average federal income tax rate today. Perhaps somewhat paradoxically, these figures seem to confirm Ulysses S. Grant's observation that "There never was a time when, in my opinion, some way could not be found to prevent the drawing of the sword" (West Point Graduates against the War n.d.).

Of course, calculations such as these distort the fact that the fundamental economic condition of war is not its average cost or benefit but rather its distributional effect, or, as one economic historian put it: "The economic benefits of the Civil War were bestowed

upon those who were able to take advantage of the changes it generated [not the least of whom were the emancipated slaves], while its costs were most heavily born by those who suffered and died on its fields of glory" (Craig 1996).

What Is War Prosperity?

The standard economic indicator for the performance of any economy is gross domestic product (GDP)—"the total value of all final goods and services produced for the marketplace during a given year within a nation's borders" (Lieberman and Hall 2005). It follows from this definition that GDP is the sum of various types of expenditures on goods and services, including private personal consumption expenditures, investment, expenditures on exports minus those on imports, and government expenditures. In any economy at any point in time, it is possible—perhaps even likely—that there are some productive resources (e.g., land, labor, or capital) that are unemployed or at least underemployed. As war approaches or is unleashed, governments employ their coercive powers to facilitate military operations. Men are conscripted to fight, capital is directed toward the production of war materiel, and so forth. Thus, government expenditures tend to increase, sometimes dramatically, during wartime, and since those expenditures are mathematically a component of the GDP, it typically increases during war.

To see this phenomenon in practice, consider Figure 1. It shows an index of real (i.e., inflation-adjusted) GDP for the U.S. economy before, during, and after U.S. involvement

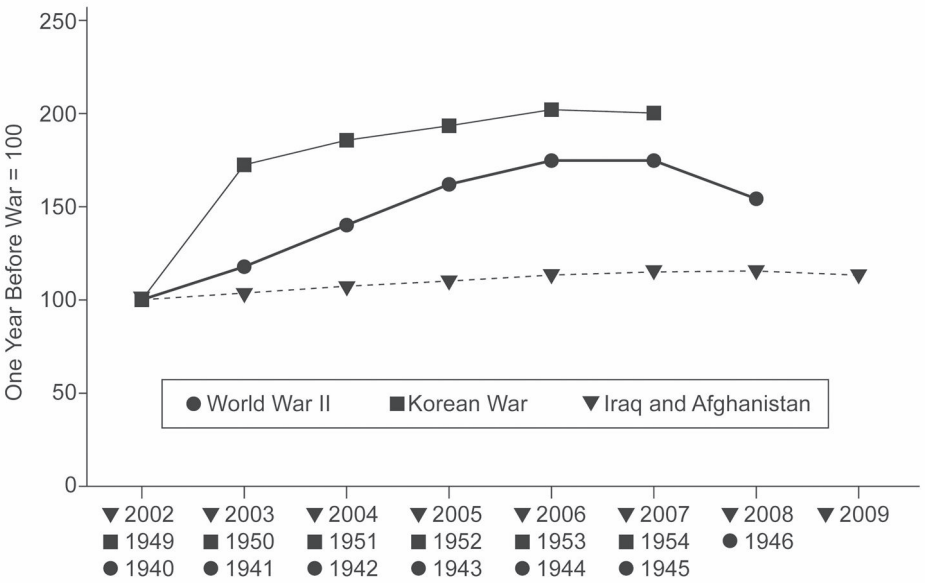


Figure 1. Wartime Prosperity: Economic Output (Real GDP): Before, During, and After World War II, the Korean War, and the Wars in the Middle East (Author's Calculation from U.S. Department of Commerce, www.commerce.gov and www.bea.gov)

in three wars: World War II (1941–1945), the Korean War (1950–1953), and the recent and ongoing wars in the Middle East. Using the year before the United States entered each war as the base year, in which GDP = 100, the figure illustrates how the economy expanded during the war years and how it leveled off as the war ended. Clearly, from this indicator, one would be justified in referring to the prosperity associated with these wars.

If government spending during wartime leads to prosperity, then shouldn't government spending during peacetime lead to prosperity? In other words, why isn't more government spending always a good thing? To answer these questions, we must consider where the government obtains the money it spends during wartime or peacetime. Governments obtain funds from three sources. They can raise the money via taxation; they can borrow the money, which is just future taxation; and they can print more money, which just leads to inflation and is a form of taxation. (Since printing money depreciates the value of money, inflation is a form of taxation on those holding money.) So, in the end, all government spending is financed one way or the other through taxation. Typically, governments turn to some combination of all three revenue sources, especially during wartime.

Once we recognize that government spending is just taxation, then we can see why it does not in general lead to prosperity. If governments fight wars with tax dollars, and if they obtain the tax dollars from consumers, then it follows that a dollar of taxation going to government spending and increasing GDP will simply be taken from a dollar of private personal consumer spending, which would in turn decrease GDP.

It does not always work like this, dollar for dollar, for at least two reasons. First, with respect to borrowing, recall that GDP represents the value of current expenditures. Government borrowing is future taxation, and the decrease in consumer spending might not show up immediately. Thus, GDP goes up today and is reduced at some time in the future. This is just robbing Peter tomorrow to pay Paul today. As a general policy, government borrowing might or might not be good for the economy—depending on how the borrowed funds are expended—but the exigencies of war are such that governments often do not worry about the future consequences of borrowing.

Second, war changes the economy in other ways that would offset the decrease in consumption resulting from taxation. For example, one of the most common forms of taxation during war is the conscription or drafting of soldiers who pay the tax with their labor. Historically, soldiers were not paid a market wage, which is why conscription is a regular companion of war. The difference between what conscripted soldiers are paid and what they would have to be paid in order to get them to volunteer represents a measure of the soldiers' tax burden. When a soldier goes to war, he (historically, conscripts tend to be men) leaves the civilian labor force, which tends to reduce his family's consumption, but often women (and children and the elderly), who might otherwise have been employed in nonmarket pursuits, replace men in the labor force. Thus, economic activity, as

measured in GDP, would now include the government spending on the soldier and the consumption generated by the women who replaced soldiers in the labor force. Rosie the Riveter, of World War II fame, is the classic example of this phenomenon. Since Rosie's prewar nonmarket activity in the household was not counted as a component of GDP—riveting is; preparing dinner, changing diapers, and cleaning the house are not—when her work is added to the government's increased wartime spending, GDP increases, just as it did during World War II.

This, then, is wartime prosperity. Unemployed or underemployed resources, or resources formerly employed in nonmarket activity, are put to work by government's wartime spending—usually spurred by increased borrowing—as companies obtain government contracts and individuals who formerly did not contribute to GDP now do so (like Rosie the Riveter); and many who did contribute to GDP in the private sector are now contributing in the government sector, albeit as conscripted soldiers. Prosperity, at least as measured by GDP, follows. Why, then, have some of the leading figures in economics and economic history questioned the concept of wartime prosperity?

Is War a Human-Made Disaster?

The comparison of war to a natural disaster is common, because both seem to create prosperity. It is not uncommon for certain types of economic activity to pick up following a natural disaster. For example, in the wake of a hurricane, roofing contractors expect to see an increase in the demand for their services, as they are called upon to repair damage to homes resulting from falling trees. Indeed, consider the whole series of related economic activities. A tree service might be called to remove the tree, the family might stay in a hotel until the roof is repaired, painters might repair internal water damage, and so forth. None of these particular expenditures would have been made by the family in the absence of the hurricane. Multiplying these and other costs incurred from damage by the number of households affected by the hurricane would yield an aggregate measure of the value of services rendered following the storm. Thus, one might conclude that the storm itself yielded the resulting prosperity.

The fundamental problem with this observation is that it assumes that the families would have neither spent nor saved the monies they expended as a direct result of the storm. Perhaps they would have purchased a new automobile, a purchase that will now be postponed. Perhaps they would have stayed in a hotel on vacation, a trip that will now be canceled. In these cases, all the hurricane did was redirect the families' spending from something they had planned or hoped to purchase (i.e., a new car or a vacation) to something they would not have wanted in the absence of the storm (i.e., a new roof and a stay at the hotel down the road).

What if a family had merely taken money out of the bank to pay for the new roof and hotel visit—money that they were, in fact, saving for a rainy day? They could still purchase the car and vacation with other funds. Would these monies not be better spent

on a new roof than just sitting in the bank? The answer is no, because the bank does not just sit on the money that is deposited there; it turns around and loans that money for productive economic activity. If people take loanable funds out of banks to pay for new roofs that they would not have needed in the absence of a hurricane—that is, if they reduce the supply of loanable funds—then the banks increase their interest rates in order to induce other people to make new deposits. This increase in interest rates in turn reduces the number of loans taken.

Why not just borrow the money from the bank? Because as people borrow money to repair the storm damage, they increase the demand for loanable funds, which in turn increases interest rates and reduces the number of loans taken. Thus, as a result of the hurricane, economic activity is redirected—from new cars and vacations to new roofs—and less economic activity occurs as upward pressure is placed on interest rates. Neither of these effects is good for the economy.

War has the same two negative effects on the economy. The opportunity cost of war is never zero. A dollar spent on a weapon, a shell, or a uniform is a dollar extracted through taxation or borrowed, which again is merely future taxation, and therefore not spent on some other activity. If consumers were better off purchasing a shell rather than an automobile, they would demand shells during peacetime rather than cars or houses or education for their children. So the forced substitution of war production for private consumption cannot be understood generally as making people better off.

As for borrowing, recall that one of the most common of war's effects on the economy is an increase in the demand for credit, as countries borrow to finance the construction of their war machines. This increases the demand for credit, which increases interest rates, which tends to drive down or crowd out private investment. So we again see governments' wartime expenditures simply replacing private expenditures. Since people generally prefer to borrow money for a home, automobile, or education rather than a plane that might get shot down over enemy territory, it is difficult to argue that the increase in government spending improves people's financial situations.

As for printing money and generating inflation to finance the war, if this were good for the economy (and it is not), then we would expect to see governments doing this during peacetime as well. Although in recent decades there has been some peacetime high inflation, it is not perceived to be a positive factor for the economy, and anything more than a little inflation is generally greeted unfavorably by lenders and consumers (and voters; woe to the president running for reelection during periods of rampant inflation, such as Jimmy Carter).

Of course, war, just like a natural disaster, redirects economic activity. Suppliers of weapons and uniforms will see an increase in the demand for their products relative to other goods and services—just as roofers see an increase in the demand for their services after hurricanes. Those who see their taxes increase, now and in the future, are among the groups whose resources are directed toward military suppliers, but the group most

likely to bear a disproportionate share of the tax burden is the soldiers who pay with their labor, especially those who ultimately pay with their lives. The death of soldier is a tragedy to his or her family. For the economy, it represents the loss of all of his or her future economic output.

What does this tell us about the persistent metaphor of wartime prosperity? The main thing is that the manner in which standard economic measures of well-being, such as GDP, are constructed biases them upward during wartime. The substitution of market for nonmarket activity increases GDP, but it does not mean people are necessarily better off. In addition, the substitution of spending today in return for consumption tomorrow might be good public policy, but it should not be confused with prosperity in any conventional sense of the word.

Measuring Wartime Prosperity

Are people better off economically as a result of wars? How do we calculate economic well-being? The great Scottish philosopher and economist Adam Smith had an answer. According to Smith, "Consumption is the sole end and purpose of all production" (Smith 1976). Typically, personal consumption expenditures are the largest component of a country's total economic output, as measured by gross domestic product. So, looking at what happens to consumption expenditures during wartime is a good place to begin in answering questions about the link between wars and economic prosperity.

Table 1 contains an index of personal consumption expenditures, adjusted for inflation, between 1939 and 1945—the years coinciding with World War II (although the United States did not formally enter the war until after the attack on Pearl Harbor in December 1941, war production had begun to accelerate in 1939). The figures in column 1 are based on U.S. Commerce Department data and show a 23.4 percent increase during the war. This would correspond with an average annual compounded rate of growth

TABLE 1. Estimates of Real Personal Consumption Expenditures (1939–1945)

Year	Base Measure	Inflation-Adjusted
1939	100.0	100.0
1940	104.6	104.2
1941	110.5	108.7
1942	109.8	104.2
1943	112.4	101.9
1944	115.9	102.0
1945	123.4	106.8

Source: Higgs, Robert. "Wartime Prosperity? A Reassessment of the U.S. Economy in the 1940s." *Journal of Economic History* 52 (1992): 41–60.

of 3.6 percent, which was quite robust at the time, considering that, during the previous decade, the country had weathered the Great Depression. When comparing the war years to the Great Depression, it is not surprising that many U.S. citizens remembered the war as an era of economic prosperity, at least those citizens who were not in Bastogne or on Guadalcanal.

However, the measurement of consumption expenditures is not without controversy. For one thing, there was tremendous inflation during the war—inflation that was accompanied by government-mandated price controls. Thus, the official prices used to adjust for this inflation do not necessarily account for the true inflation rate as reflected in, for example, black-market or illegal prices. The figures in column 2 of the table, which adjust personal consumption expenditures during the war, were calculated using an alternative set of inflation-adjusted prices. Here we see that consumption increased by only 6.8 percent over the course of the war, a rate of growth that did not even keep up with population growth. Thus, during the so-called wartime prosperity, real average consumption per person actually fell. This is not what one typically associates with prosperity. As is often the case in economics, the devil is in the details, and the details are in the numbers.

Winners and Losers

From the discussion above, it appears that rather than enriching an economy, war simply changes it, and the changes are a function of the size of the war relative to the size of the economy. At the peak of government military spending during World War II, in 1944, national defense spending was 41 percent of GDP. Currently, with two campaigns active in the Middle East, the defense share is 8 percent of GDP. This explains the more dramatic curvature of the World War II data relative to the Middle East wars shown in Figure 1.

But, holding other things constant, the key to understanding the impact of war on the economy is appreciating that war represents a net transfer of resources from taxpayers (including soldiers) to suppliers of war materiel (companies), and from borrowers (again, future taxpayers) to holders of savings (buyers of government bonds). Of course, in war, other things are not constant. In particular, the discussion to this point has said nothing about winners and losers. The destruction wrought by war can nearly completely devastate an area. After the destruction of Carthage in 146 B.C., the Romans supposedly sowed salt in the earth so that the Carthaginians would never rise again. Byzantium never recovered from the Fourth Crusade. Hiroshima was turned into ash. Neither the Carthaginians nor the Byzantines nor the Japanese spoke of wartime prosperity.

There is one way in which the economy can emerge a winner from war. This is if war is engaged in to remove a threat to the country and make the economy more secure. Households and businesses will be more reluctant to make important and needed investments in the economy if they fear the country will not exist, or at least will be

severely damaged, in the future. In this case, a war to remove the threat and increase the likelihood of a peaceful future can ultimately improve long-term economic prosperity. The cold war's triumph of capitalism over communism offers a good recent example of this type of benefit, perhaps justifying, in economic terms at least, the war's tremendous cost in lives and treasure.

Ultimately, however, war is more than an economic activity. Clemenceau's admonition that war is too important to be left to generals applies here; it is too important to be left to economists as well. For those who see war as the alternative to annihilation, a blip in real GDP in one direction or the other is of little importance. Winning at almost any cost is what matters. Ask the Carthaginians.

See also **Debt, Deficits, and the Economy**

Further Reading

Atack, Jeremy, and Peter Passell, *A New Economic View of American History,* 2d ed. New York: W. W. Norton, 1994.

Cicero (Marcus Tullius), *The Fifth Philippic.* Cambridge, England: Cambridge University Press, 2003.

Craig, Lee A., "Industry, Agriculture, and the Economy during the Civil War." In *The American Civil War: A Handbook of Literature and Research,* ed. Steven E. Woodworth. Westport, CT: Greenwood Press, 1996.

Goldin, Claudia, "The Economics of Emancipation." *Journal of Economic History* 33 (1973): 66–85.

Goldin, Claudia, and Frank D. Lewis, "The Economic Cost of the American Civil War: Estimates and Implications." *Journal of Economic History* 35 (1975): 304–309.

Higgs, Robert, "Wartime Prosperity? A Reassessment of the U.S Economy in the 1940s." *Journal of Economic History* 52 (1992): 41–60.

Hughes, Jonathan, and Louis P. Cain, *American Economic History,* 8th ed. Upper Saddle River, NJ: Prentice Hall, 2010.

Kennedy, David M., *Freedom from Fear: The American People in Depression and War, 1929–1945.* New York: Oxford University Press, 1999.

Lewis, Lloyd, *Sherman: Fighting Prophet.* Lincoln: University of Nebraska Press, 1993 [1932].

Lieberman, Marc, and Robert E. Hall, *Introduction to Economics,* 2d ed. Mason, OH: South-Western, 2005.

MacArthur, Douglas, *Farewell Address to Congress.* 1951. http://www.americanrhetoric.com/speeches/douglasmacarthurfarewelladdress

Nyden, Paul J., "Bush's War Plans Are a Cover-up, Senator Byrd Says." *Charleston Gazette* (September 21, 2002). http://www.dupagepeacethroughjustice.org/byrd.html

Smiley, Gene, *The American Economy in the Twentieth Century.* Cincinnati: South-Western, 1994.

Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations,* Vol. 2. Indianapolis: Liberty Classics, 1976 [1776].

West Point Graduates against the War, *Wise Words from Old Grads* (n.d.). http://www.westpointgradsagainstthewar.org/wise_words_from_old_grads.htm

Bibliography

Business and Economic Policy and Law

Angell, Marcia, *The Truth about the Drug Companies: How They Deceive Us and What to Do about It.* New York: Random House, 2004.

Avorn, Jerry, *Powerful Medicines: The Benefits, Risks, and Costs of Prescription Drugs.* New York: Vintage, 2005.

Bacon, David, *Illegal People: How Globalization Creates Migration and Criminalizes Immigrants.* Boston: Beacon Press, 2008.

Bagdikian, Ben, *The New Media Monopoly.* Boston: Beacon Press, 2004.

Berry, Jeffrey, and Clyde Wilcox, *Interest Group Society.* New York: Longman, 2008.

Boortz, Neal, and John Linder, *FairTax, the Truth: Answering the Critics.* New York: Harper, 2008.

Borjas, George J., *Heaven's Door: Immigration Policy and the American Economy.* Princeton, NJ Princeton University Press, 2001.

Burbank, Matthew J., Ronald J. Hrebenar, and Robert C. Benedict, *Parties, Interest Groups, and Political Campaigns.* Boulder, CO: Paradigm, 2008.

Burkholder, Nicholas C., *Outsourcing: The Definitive View, Applications and Implications.* Hoboken, NJ: John Wiley, 2006.

Chester, Jeff, *Digital Destiny: New Media and the Future of Democracy.* New York: New Press, 2007.

Cigler, Allan, and Burdett A. Loomis, *Interest Group Politics.* Washington, DC: Congressional Quarterly Press, 2006.

Croteau, David, and William Hoynes, *The Business of Media: Corporate Media and the Public Interest,* 2d ed. Thousand Oaks, CA: Pine Forge Press, 2006.

Diamond, John W., and George R. Zodrow, *Fundamental Tax Reform: Issues, Choices, and Implications.* Cambridge, MA: MIT Press, 2008.

Ehrenberg, Ronald G., and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy.* Boston: Pearson Addison-Wesley, 2006.

Emerson, Robert W., *Business Law,* 5th ed. Hauppauge, NY: Barron's, 2009.

Feenstra, Robert C., *Offshoring in the Global Economy: Microeconomic Structures and Macroeconomic Implications.* Cambridge, MA: MIT Press, 2010.

Finkelstein, Stan N., *Reasonable Rx: Solving the Drug Price Crisis.* Upper Saddle River, NJ: FT Press/Pearson Education, 2008.

Freeman, Jodi, and Martha Minnow, *Government by Contract: Outsourcing and American Democracy.* Cambridge, MA: Harvard University Press, 2009.

Greenwald, Howard P., *Health Care in the United States: Organization, Management, Policy.* San Francisco: Jossey-Bass, 2010.

Hrebenar, Ronald, and Bryson B. Morgan, *Lobbying in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2009.

Hyman, David N., *Public Finance: A Contemporary Application of Theory to Policy,* 10th ed. Mason, OH: South-Western College Publishing, 2010.

Johnston, Mark C., *Free Lunch: How the Wealthiest Americans Enrich Themselves at Government Expense.* New York: Portfolio, 2007.

Kaiser, Robert G., *So Damn Much Money: The Triumph of Lobbying and the Corrosion of American Government.* New York: Vintage Books, 2010.

Kronenfeld, Jennie Jacobs, *Expansion of Publicly Funded Health Insurance in the United States: The Children's Health Insurance Program and Its Implications.* Lanham, MD: Lexington Books, 2006.

Kronenfeld, Jennie Jacobs, and Michael Kronenfeld, *Health Care Reform in America.* Santa Barbara, CA: ABC-CLIO, 2004.

Marmor, Theodore H., *The Politics of Medicare,* 2d ed. New York: Aldine De Gruyer, 2000.

McKinnell, Hank, *A Call to Action: Taking Back Healthcare for Future Generations.* New York: McGraw-Hill, 2005.

Mol, Michael, *Outsourcing: Design, Process and Performance.* New York: Cambridge University Press, 2007.

Oshri, Ilan, Julia Kotlarsky, and Leslie P. Willcocks, *The Handbook of Global Outsourcing and Offshoring.* New York: Palgrave Macmillan, 2009.

Pasour, E. C., Jr., and Randal R. Rucker, *Plowshares and Pork Barrels: The Political Economy of Agriculture.* Oakland, CA: Independent Institute, 2005.

Peterson, E. Wesley F., *A Billion Dollars a Day: The Economics and Politics of Agricultural Subsidies.* Malden, MA: Wiley-Blackwell, 2009.

Quadagno, Jill, *One Nation Uninsured: Why The U.S. Has No National Health Insurance.* New York: Oxford University Press, 2005.

Schwabach, Aaron, *Intellectual Property: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Slemrod, Joel, and Jon Bakija, *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes.* Cambridge, MA: MIT Press, 2008.

Sorkin, Andrew Ross, *Too Big to Fail: The Inside Story of How Wall Street and Washington Fought to Save the Financial System from Crisis—and Lost.* New York: Viking, 2009.

Steuerle, C. Eugene, *Contemporary U.S. Tax Policy,* 2d ed. Washington, DC: Urban Institute, 2008.

Stout, Robert Joe, *Why Immigrants Come to America: Braceros, Indocumentados, and the Migra.* Westport, CT: Praeger, 2008.

Utter, Glenn H., and Ruth Ann Strickland, *Campaign and Election Reform,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2008.

White, Lawrence J., *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation.* New York: Oxford University Press, 1991.

Yu, Peter K., *Intellectual Property and Information Wealth: Issues and Practices in the Digital Age.* Westport, CT: Praeger, 2007.

Employment and Unemployment

Anderson, Terry H., *The Pursuit of Fairness: A History of Affirmative Action.* New York: Oxford University Press, 2004.

Andersson, Fredrik, *Moving Up or Moving Down: Who Advances in the Low-Wage Market?* New York: Russell Sage Foundation, 2005.

Barreto, Manuela, et al., eds., *The Glass Ceiling in the 21st Century: Understanding Barriers to Gender Equality.* Washington, DC: American Psychological Association, 2009.

Bell, Ella L. J., and Stella M. Nkomo, *Our Separate Ways: Black and White Women and the Struggle for Professional Identity.* Cambridge, MA: Harvard Business School Press, 2003.

Bennett, James T., and Bruce E. Kaufmann, eds., *What Do Unions Do? A Twenty-Year Perspective.* New Brunswick, NJ: Transaction Publishers, 2007.

Briggs, Vernon, *Immigration and American Unionism.* Ithaca, NY: Cornell University Press, 2001.

Brody, David, *Labor Embattled: History, Power, Rights.* Urbana: University of Illinois Press, 2005.

Card, David, and Alan Krueger, *Myth and Measurement: The New Economics of the Minimum Wage.* Princeton, NJ: Princeton University Press, 1995.

Chappell, Marisa, *The War on Welfare: Family, Poverty, and Politics in Modern America.* Philadelphia: University of Pennsylvania Press, 2010.

Chih Lin, Ann, and David R. Harris, eds., *The Colors of Poverty: Why Racial and Ethnic Disparities Exist.* New York: Russell Sage Foundation, 2008.

Conley, Dalton, ed., *Wealth and Poverty in America: A Reader.* Malden, MA: Blackwell, 2003.

Dine, Philip M., *State of the Unions: How Labor Can Strengthen the Middle Class, Improve Our Economy, and Regain Political Influence.* New York: McGraw-Hill, 2008.

Dobbin, Frank, *Inventing Equal Opportunity.* Princeton, NJ: Princeton University Press, 2009.

Early, Steve, *Embedded with Organized Labor: Journalistic Reflections on the Class War at Home.* New York: Monthly Review Press, 2009.

Ehrenreich, Barbara, *Nickel and Dimed: On (Not) Getting By in America.* New York: Henry Holt, 2002.

Epstein, William M., *Good Citizenship and the War on Poverty.* University Park: Pennsylvania State University Press, 2010.

Goode, Judith, and Jeff Maskovsky, eds., *New Poverty Studies: The Ethnography of Power, Politics, and Impoverished People in the United States.* New York: New York University Press, 2001.

Henry, C. Michael, ed., *Race, Poverty, and Domestic Policy.* New Haven, CT: Yale University Press, 2004.

Karsten, Margaret Foegen, *Gender, Race, and Ethnicity in the Workplace: Issues and Challenges for Today's Organizations.* Westport, CT: Praeger, 2006.

Katznelson, Ira, *When Affirmative Action Was White: An Untold History of Racial Inequality in Twentieth-Century America.* New York: W. W. Norton, 2005.

Kellough, J. Edward, *Understanding Affirmative Action: Politics, Discrimination, and the Search for Justice.* Washington, DC: Georgetown University Press, 2006.

Lang, Kevin, *Poverty and Discrimination.* Princeton, NJ: Princeton University Press, 2007.

Neumark, David, and William L. Wascher, *Minimum Wages.* Cambridge, MA: MIT Press, 2008.

Newman, Katherine S., *The Missing Class: Portraits of the Near Poor in America.* Boston: Beacon Press, 2007.

Pollin, Robert, et al., *A Measure of Fairness: The Economics of Living Wages and Minimum Wages in the United States.* Ithaca, NY: ILR Press, 2008.

Schiller, Bradley, *The Economics of Poverty and Discrimination,* 10th ed. Upper Saddle River, NJ: Pearson Prentice Hall, 2008.

Troy, Leo, *Beyond Unions and Collective Bargaining.* Armonk, NY: M. E. Sharpe, 2000.

Wilson, William Julius, *More than Just Race: Being Black and Poor in the Inner City.* New York: W. W. Norton, 2009.

Yates, Michael D., *Why Unions Matter,* 2d ed. New York: Monthly Review Press, 2009.

Financial Matters

Balsam, Steven, *An Introduction to Executive Compensation.* Burlington, MA: Academic Press, 2002.

Black, William K., *The Best Way to Rob a Bank Is to Own One: How Corporate Executives and Politicians Looted the S&L Industry.* Austin: University of Texas Press, 2005.

Blake, David, *Pension Economics.* New York: John Wiley, 2006.

Calavita, Kitty, Henry N. Pontell, and Robert H. Tillman, *Big Money Crime: Fraud and Politics in the Savings and Loan Crisis.* Berkeley: University of California Press, 1997.

Cecchetti, Stephen G., *Money, Banking, and Financial Markets,* 2d ed. Boston: McGraw-Hill Irwin, 2007.

Committee on Governmental Affairs, *The Role of Professional Firms in the U.S. Tax Shelter Industry.* Washington, DC: U.S. Government Printing Office, 2005.

Crystal, Graef S., *In Search of Excess: The Overcompensation of American Executives.* New York: W. W. Norton.

Edwards, Chris, and Daniel J. Mitchell, *Global Tax Revolution: The Rise of Tax Competition and the Battle to Defend It.* Washington, DC: Cato Institute, 2008.

Friedman, Milton, and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960.* Princeton, NJ Princeton University Press, 1963.

Frontline: Breaking the Bank. Documentary. Michael Kirk, dir. Boston: WGBH/Frontline, 2009.

Gale, William G., et al., eds., *The Evolving Pension System: Trends, Effects, and Proposals for Reform.* Washington, DC: Brookings Institution Press, 2008.

Ghilarducci, Theresa, *When I'm Sixty-Four: The Plot against Pensions and the Plan to Save Them.* Princeton, NJ: Princeton University Press, 2008.

Hyman, David N., *Public Finance: A Contemporary Application of Theory to Policy,* 6th ed. Orlando: Dryden Press, 1999.

Kay, Ira T., and Steven Van Putten, *Myths and Realities of Executive Pay.* New York: Cambridge University Press, 2007.

Lewis, Michael, *The Big Short: Inside the Doomsday Machine.* New York: W. W. Norton, 2010.

Lowenstein, Roger, *While America Aged: How Pension Debts Ruined General Motors, Stopped the NYC Subways, Bankrupted San Diego, and Loom as the Next Financial Crisis.* New York: Penguin, 2009.

Meltzer, Allan H., *A History of the Federal Reserve.* Vol. 1, *1913–1951.* Chicago: University of Chicago Press, 2003.

Modigliani, Franco, and Arun Muralidhar, *Rethinking Pension Reform.* Cambridge, England: Cambridge University Press, 2005.

Morris, Charles R., *Apart at the Seams: The Collapse of Private Pension and Health Care Protections.* New York: Century Foundation, 2008.

Orenstein, Mitchell A., ed., *Pensions, Social Security, and the Privatization of Risk.* New York: Columbia University Press, 2009.

Ritholtz, Barry, *Bailout Nation: How Greed and Easy Money Corrupted Wall Street and Shook the World Economy.* Hoboken, NJ: John Wiley, 2009.

Shaviro, Daniel N., *Corporate Tax Shelters in a Global Economy.* Washington, DC: AEI Press, 2004.

Slemrod, Joel, *Taxing Ourselves: A Citizen's Guide to the Debate over Taxes,* 4th ed. Cambridge, MA: MIT Press, 2008.

Smith, Hedrick, *Tax Me If You Can.* Documentary. Boston: PBS (a Frontline coproduction with Hendrick Smith Productions), 2004.

Stern, Gary H., and Ron J. Feldman, *Too Big to Fail: The Hazards of Bank Bailouts.* Washington, DC: Brookings Institution Press, 2004.

Summers, Lawrence H., *Tackling the Growth of Corporate Tax Shelters.* Washington, DC: Office of Public Affairs, Department of the Treasury, 2000.

White, Lawrence J., *The S&L Debacle: Public Policy Lessons for Bank and Thrift Regulation.* New York: Oxford University Press, 1991.

Marketing

Berger, Arthur, *Ads, Fads, and Consumer Culture,* 3d ed. Lanham, MD: Rowman & Littlefield, 2007.

Campaign for a Commercial-Free Childhood. http://www.commercialfreechildhood.org

Consumers against Supermarket Privacy Invasion and Numbering. http://www.nocards.org

Danziger, Pamela N., *Why People Buy Things They Don't Need.* New York: Paramount Market Publishing, 2002.

Goodrum, Charles, and Helen Dalrymple, *Advertising in America: The First 200 Years.* New York: Harry N. Abrams, 1990.

Grogan, Sarah, *Body Image.* New York: Routledge, 2007.

Kilbourne, Jean, *Deadly Persuasion: Why Women and Girls Must Fight the Addictive Power of Advertising.* New York: Free Press, 1999.

Kirkpatrick, Jerry, *In Defense of Advertising: Arguments from Reason, Ethical Egoism, and Laissez-Faire Capitalism.* Claremont, CA: TLJ Books, 2007.

Pennock, Pamela E., *Advertising Sin and Sickness: The Politics of Alcohol and Tobacco Marketing, 1950–1990.* Dekalb: Northern Illinois University Press, 2007.

Quart, Alissa, *Branded: The Buying and Selling of Teenagers.* New York: Basic Books, 2004.

Reichert, Tom, *The Erotic History of Advertising.* Amherst, NY: Prometheus Books, 2003.

Ries, Al, and Laura Ries, *The Rise of PR and the Fall of Advertising.* New York: Collins, 2002.

Rutherford, Paul, *A World Made Sexy: Freud to Madonna.* Toronto: University of Toronto Press, 2007.

Schor, Juliet, *Born to Buy.* New York: Scribner, 2005.

Schwartz, Barry, *The Paradox of Choice: Why More Is Less.* New York: HarperCollins, 2004.

Stanford, Eleanor, *Advertising: Introducing Issues with Opposing Viewpoints.* San Diego: Greenhaven Press, 2007.

Wilkins, Lee, and Clifford G. Christians, eds., *The Handbook of Mass Media Ethics.* New York: Routledge, 2009.

Wykes, Maggie, and Barry Gunter, *The Media and Body Image.* Thousand Oaks, CA: Sage, 2005.

Trade Issues, Globalization, and the General Economy

Aronowitz, Stanley, and Heather Gautney, eds., *Implicating Empire: Globalization and Resistance in the 21st Century World Order.* New York: Basic Books, 2003.

Atack, Jeremy, and Peter Passell, *A New Economic View of American History,* 2d ed. New York: W. W. Norton, 1994.

Bhagwati, Jagdish, *Free Trade Today.* Princeton, NJ: Princeton University Press, 2002.

Cline, William R., *The United States as a Debtor Nation.* Washington, DC: Institute for International Economics, 2005.

Cook, Thomas A., *Managing Global Supply Chains.* Boca Raton, FL: Auerbach Publications, 2008.

Crystal, Jonathan, *Unwanted Company: Foreign Investment in American Industries.* Ithaca, NY: Cornell University Press, 2003.

De Rivero, Oswaldo, *The Myth of Development: The Non-Viable Economies of the 21st Century.* New York: Zed Books, 2001.

Downey, Morgan Patrick, *Oil 101.* New York: Wooden Table Press, 2009.

Dunway, Steven Vincent, *Global Imbalances and the Financial Crisis.* Washington, DC: Council on Foreign Relations, 2009.

Easterly, William, *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good.* New York: Penguin, 2006.

Eisner, Robert, *The Great Deficit Scares: The Federal Budget, Trade, and Social Security.* New York: Twentieth Century Foundation, 1997.

Gálvez-Muñoz, Lina, and Geoffrey G. Jones, eds., *Foreign Multinationals in the United States: Management and Performance.* New York: Routledge, 2001.

Gordon, John Steele., *Hamilton's Blessing: The Extraordinary Life and Times of Our National Debt.* New York: Walker, 2010.

Grace, Robert, *Oil: An Overview of the Petroleum Industry.* Houston: Gulf Publishing, 2007.

Hilton, Matthew, *Prosperity for All: Consumer Activism in an Era of Globalization.* Ithaca, NY: Cornell University Press, 2009.

Hufbauer, Gary Clyde, et al., *U.S.-China Trade Disputes: Rising Tide, Rising Stakes.* Washington, DC: Institute for International Economics, 2006.

Hughes, Jonathan, and Louis P. Cain, *American Economic History,* 8th ed. Upper Saddle River, NJ: Prentice Hall, 2010.

Irwin, Douglas A., *Free Trade under Fire,* 3d ed. Princeton, NJ: Princeton University Press, 2009.

Juhasz, Antonia, *The Tyranny of Oil: The World's Most Powerful Industry—And What We Must Do to Stop It.* New York: Harper, 2009.

Kelly, Robert E., *The National Debt of the United States, 1914–2008.* Jefferson, NC: McFarland, 2008.

Kennedy, David M., *Freedom from Fear: The American People in Depression and War, 1929–1945.* New York: Oxford University Press, 1999.

Klare, Michael T., *Blood and Oil: The Dangers and Consequences of America's Growing Dependency on Imported Petroleum.* New York: Henry Holt, 2005.

Landes, David S., *The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor.* New York: W. W. Norton, 1999.

Lindsey, Brik, and Daniel Ikenson, *Anti-Dumping Exposed: The Devilish Details of Unfair Trade Law.* Washington, DC: CATO Institute, 2003.

Little, Jane Sneddon, ed., *Global Imbalances and the Evolving World Economy.* Boston: Federal Reserve Bank of Boston, 2008.

Manula, Marko, Guten Tag, *Y'all: Globalization and the South Carolina Piedmont, 1950–2000.* Athens: University of Georgia Press, 2009.

Maynard, Micheline, *The End of Detroit: How the Big Three Lost Their Grip on the American Car Market.* New York: Broadway Books, 2004.

Maynard, Micheline, *The Selling of the American Economy: How Foreign-Owned Companies Are Remaking the American Dream.* New York: Broadway Books, 2009.

McNichols, Michael, *Maritime Security: An Introduction.* Burlington, MA: Butterworth-Heinemann, 2007.

Morgan, Iwan W., *The Age of Deficits: Presidents and Unbalanced Budgets from Jimmy Carter to George W. Bush.* Lawrence: University Press of Kansas, 2009.

Paul, William Henry, *Future Energy: How the New Oil Industry Will Change People, Politics, and Portfolios.* New York: John Wiley, 2007.

Preeg, Ernest H., *The Trade Deficit, the Dollar, and the National Interest.* Indianapolis: Hudson Institute, 2000.

Priest, Tyler, *The Offshore Imperative: Shell Oil's Search for Petroleum in Postwar America.* College Station: Texas A&M University Press, 2007.

Ritter, Luke, et al., *Securing Global Transportation Networks.* New York: McGraw-Hill, 2007.

Roberts, Russell D., *The Choice: A Fable of Free Trade and Protectionism.* Upper Saddle River, NJ: Pearson Prentice Hall, 2007.

Saul, John Ralston, *The Collapse of Globalism and the Reinvention of the World.* Toronto: Viking, 2005.

Smiley, Gene, *The American Economy in the Twentieth Century.* Cincinnati: South-Western, 1994.

Stiglitz, Joseph, *Globalization and Its Discontents.* New York: W. W. Norton, 2003.

Stiglitz, Joseph, *Making Globalization Work.* New York: W. W. Norton, 2007.

Sweet, Kathleen M., *Transportation and Cargo Security: Threats and Solutions.* Upper Saddle River, NJ: Prentice Hall, 2005.

Thomas, Andrew R., *Supply Chain Security.* Santa Barbara, CA: Praeger, 2010.

U.S. Tariff Commission, *Information Concerning Dumping and Unfair Competition in the United States and Canada's Anti-Dumping Law.* Washington, DC: U.S. Tariff Commission, 2009.

Wilkins, Mira, *A History of Foreign Investment in the United States, 1914–1945.* Cambridge, MA: Harvard University Press, 2004.

Wright, Robert E., *One Nation under Debt: Hamilton, Jefferson, and the History of What We Owe.* New York: McGraw-Hill, 2008.

Yarrow, Andrew L., *Forgive Us Our Debts: The Intergenerational Dangers of Fiscal Irresponsibility.* New Haven, CT: Yale University Press, 2008.

About the Editor and Contributors

Editor

Michael Shally-Jensen is former editor-in-chief of the *Encyclopedia Americana,* executive editor of the *Encyclopedia of American Studies,* and editor of numerous other books and reference publications. He received his PhD in cultural anthropology from Princeton University, having specialized in aspects of American culture and society. He lives in Amherst, Massachusetts.

Contributors

Carl R. Anderson is vice president of finance at High Pressure Equipment Company and an adjunct faculty member at Edinboro University of Pennsylvania. His areas of expertise are financial and cost management.

Anita C. Butera is an assistant professor of criminal justice at Marist College in Poughkeepsie, New York. She holds a PhD in sociology from American University and a JD from State University of New York–Buffalo.

Jason A. Checque practices law in Erie, Pennsylvania. He received an MBA from the Black School of Business, Penn State Erie, The Behrend College, and a law degree from Duquesne University School of Law.

Robin Morris Collin is professor of law and director of the certificate program in sustainability and law at Willamette University College of Law in Salem, Oregon. She is coauthor, with Robert William Collin, of *The Encyclopedia of Sustainability* (Greenwood Press, 2009), among other publications.

Lee A. Craig is an alumni distinguished undergraduate professor of economics at North Carolina State University, where he has taught for almost two decades. A noted economic historian, Craig has written on such diverse topics as the history of public pensions, the impact of mechanical refrigeration on nutrition, and the European economy.

John D. Crane is a psychological and marketing researcher at the Pennsylvania State University, with expertise in the effects of marketing endeavors on vulnerable populations and cultural socialization influences on individuals' behavior. He trained as an insurance management officer at Bankers Life and Casualty Company.

Peter H. Denton is associate professor of history at the Royal Military College of Canada (Kingston, Ontario), instructor in technical communications and ethics at Red River College (Winnipeg, Manitoba), and a minister in the United Church of Canada. His research applies the philosophy of technology to contemporary global issues, including environmental sustainability, social responsibility, and warfare.

Ashutosh Deshmukh is a professor of accounting and management information systems at the Black School of Business, Penn State Erie, The Behrend College. He specializes in accounting information systems and auditing and has published extensively in these areas.

Edward W. Erickson is a professor emeritus of economics at North Carolina State University, where he taught for over 35 years. Predating the energy crises of the 1970s, he earned a PhD from Vanderbilt University and wrote his dissertation on the oil market. He then became an internationally recognized expert on energy and oil and published and consulted on these topics throughout his career.

Keith C. Farrell is the accounting manager at Reed Manufacturing Company in Erie, Pennsylvania. His areas of expertise are financial accounting, cost management, and corporate taxation.

Robert M. Fearn is a professor emeritus of economics at North Carolina State University. He has focused his teaching, research, and writing on the operation of labor markets. Prior to his academic career, he worked as a specialist on the former Soviet Union's economy for the U.S. Central Intelligence Agency.

Geoffrey Gilbert is professor of economics and Lloyd Wright Professor in Conservative Studies at Hobart and William Smith Colleges in Geneva, New York. His research focuses on the economics of population and world poverty issues. Recent publications include *World Population* (2006) and *World Poverty* (2004), both from ABC-CLIO.

Thomas Grennes is a professor of economics at North Carolina State University, where he has taught for 40 years. His research specialties are international trade and

monetary economics. He has published books and academic articles and has been a guest lecturer in Eastern Europe.

Scott E. Hein is Robert C. Brown Professor of Finance at the Rawls College of Business Administration, Texas Tech University. He also serves as the faculty director of the Texas Tech School of Banking. Among his numerous publications is *The Stock Market* (Greenwood Press, 2006), coauthored with Rik W. Hafer.

Jeanne M. Hogarth is program manager in the Division of Consumer and Community Affairs at the Federal Reserve Board. She has had a long career in education, including as a high school teacher and an associate professor at Cornell University. She has published widely on consumer economics and personal finance.

Ronald J. Hrebenar is professor of political science at the University of Utah. His research focuses on interest groups, lobbying, political parties, and elections in the United States, Japan, and Europe. Among his recent books are *Lobbying in America* (ABC-CLIO, 2009) and *Parties, Interest Groups and Political Campaigns* (2008), coauthored with Matthew J. Burbank and Robert C. Benedict.

David N. Hyman has been a professor of economics at North Carolina State University for over 35 years. He earned his PhD from Princeton University. He is the author of several popular college-level economics textbooks and served on the staff of the President's Council of Economic Advisors during the Reagan administration.

James H. Johnson Jr. is the William R. Kenan Jr. Distinguished Professor of Entrepreneurship and director of the Urban Investment Strategies Center at the University of North Carolina at Chapel Hill. His PhD is from Michigan State University, and his research interests include community economic development and the effects of demographic change on the workplace. Johnson is frequently quoted in the national media, including *USA Today* and National Public Radio.

Brandon Kramer is a territory manager in the pharmaceuticals industry. His areas of expertise are health care management and pharmaceutical sales.

Jennie Jacobs Kronenfeld is professor of sociology at Arizona State University, Tempe. She has published over 100 articles in medical sociology, public health, and health care policy. She has authored, coauthored, and edited over 20 books on a wide variety of topics related to health and social policy, professional development, health policy concerns, and research in the sociology of health care.

William M. Kunz is associate professor in the Department of Interdisciplinary Arts and Sciences at the University of Washington at Tacoma. He has also worked as a vice president and senior producer at Turner Broadcasting and as a producer with

ABC Sports and NBC Sports. Among his publications is *Culture Conglomerates: Consolidation in the Motion Picture and Television Industries* (2006).

Kenneth Louie is an associate professor of economics and chair of the international business program at the Black School of Business, Penn State Erie, The Behrend College. His areas of expertise are international economics and the economics of labor markets.

Robert D. Manning is a research fellow at the Filene Research Institute, past director of the Center for Consumer Financial Services at Rochester Institute of Technology, and founder of the Responsible Debt Relief Institute. Author of the widely acclaimed *Credit Card Nation* (2000), which received the 2001 Robert Ezra Park Award for Outstanding Contribution to Sociological Practice, Manning is a specialist in consumer finance, financial education, retail banking deregulation, race and ethnic studies, and globalization.

Phylis M. Mansfield is an associate professor of marketing at the Black School of Business, Penn State Erie, The Behrend College. She is the author of several book chapters and articles on consumer complaint resolution, service quality, and social issues and ethics in marketing. In addition, she has 20 years of corporate marketing experience.

Elizabeth A. Nowicki is currently a visiting associate professor of law at Boston University and a member of the Tulane Law School faculty. She has written on securities law topics and on topics related to corporate governance and directors' liability. Her areas of interest include corporate law, mergers and acquisitions, securities regulation, publicly held businesses, and corporate finance.

Raymond Owens is a research economist at the Federal Reserve Bank of Richmond. He holds academic degrees from Virginia Tech, and he tracks the national and regional economies for the bank. A frequent public speaker, Owens has also written papers on credit issues, real estate markets, and economic development incentives.

Diane H. Parente is associate professor of management at the Black School of Business, Penn State Erie, The Behrend College. She is a second-career academic and the author of numerous articles, mostly concerning interdisciplinary solutions to business issues. She is a frequent speaker on strategy, online education, and project management.

E. C. Pasour Jr. is a professor emeritus of agricultural and resource economics at North Carolina State University. With a PhD from Michigan State University, Pasour is the author of two books and numerous articles, primarily on the agricultural economy and market economics.

Mary Beth Pinto is an associate professor of marketing and director of the Center for Credit and Consumer Research at the Black School of Business, Penn State Erie, The Behrend College. She is the author of numerous articles on consumer behavior, health care marketing, and advertising.

Paul W. Schneider holds an MBA from Penn State Erie, The Behrend College. He has numerous regional publications and professional organization memberships and specializes in communications.

John J. Seater is professor of economics at North Carolina State University. He has also worked at the Federal Reserve Bank of Philadelphia. His teaching and research are in the areas of macroeconomics and monetary economics, and his journal publications include articles on impacts of budget deficits, movements in interest rates, and the response of household spending to changes in income.

John Silvia is chief economist for Wachovia Corporation. He holds a PhD from Northeastern University, and, prior to joining Wachovia, he worked for Kemper Funds and in positions at the U.S. Congress. Silvia sits on several boards and advisory groups, including the Economic Development Board for the State of North Carolina and the National Association of Business Economics, and has been president of the Charlotte Economics Club.

Peter B. Southard is an assistant professor of management at the Black School of Business, Penn State Erie, The Behrend College. His expertise is in supply chain management, operations planning and control systems, and information systems. His management experience includes banking and at the U.S. Department of Agriculture.

Ruth Ann Strickland is a professor of political science at Appalachian State University, Boone, North Carolina. Her areas of interest include U.S. government, public policy, the judicial process, and administrative law. She is the author of five books, including *Campaign and Election Reform* (ABC-CLIO, 2008), with Glenn H. Utter.

William M. Sturkey holds a master's degree in African American studies from the University of Wisconsin–Madison and is currently a PhD student in history. His area of expertise is the post–World War II history of African Americans.

Lois A. Vitt is the founding director of the Institute for Socio-Financial Studies, Charlottesville, Virginia. She is a sociologist who has conducted research on consumer decision making, financial literacy education, consumer health finances, the finances of retirement and aging, and financial instruments and organizations. Among her publications is the two-volume *Encyclopedia of Retirement and Finance* (Greenwood Press, 2003).

Michael L. Walden is a William Neal Reynolds Distinguished Professor in the Department of Agricultural and Resource Economics at North Carolina State University. Holder of a PhD from Cornell University, Walden's career spans 30 years and includes publication of seven books and hundreds of articles as well as service on dozens of commissions and study groups. Additionally, Walden writes a regular newspaper column and produces daily radio programs, for which he has won national awards.

Walter J. Wessels is a professor of economics at North Carolina State University. A nationally recognized expert on the labor market, his PhD is from the University of Chicago, and he has been teaching for over 30 years. His recent research and publications have dealt with the impact of unions and consequences for raising the minimum wage.

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

VOLUME 2
CRIMINAL JUSTICE

Michael Shally-Jensen, Editor

ABC-CLIO

Santa Barbara, California • Denver, Colorado • Oxford, England

A

AFRICAN AMERICAN CRIMINAL INJUSTICE

Alexander W. Pisciotta

Although the U.S. criminal justice system has a long and well-documented history of racism, sexism, and discrimination against the poor and powerless, controversies still exist about whether, for example, institutionalized racial discrimination still exists or how a racist past has shaped the lives and mind set of modern African Americans. Black Americans, in particular, have felt the collective wrath and injustice of state coercion from colonial times through the 19th century and well into the 20th century. This entry focuses on the evolution of the intentional and systematic repression aimed at fitting African Americans into their so-called proper place in the economic, political, social, cultural, and legal order.

Background

Crime was not a serious concern during the colonial period. Early settlements in the New World were, as legal historian Lawrence M. Friedman aptly puts it, "tight little islands." Villages were small and isolated. Their populations were religiously, ethnically, socially, and culturally homogeneous—and largely white. The early settlers knew their neighbors intimately and kept them under close surveillance. Colonial criminal justice systems were small, informal, and aimed at correcting the transgressions of misguided neighbors, friends, and relatives. Punishments were based upon the philosophy of re-integrative shaming: public humiliation followed by reintegration into the community. Put simply, the early colonists were their brothers' keepers.

The arrival of the first captive Africans at Jamestown, Virginia, in 1619—possibly as indentured servants, not slaves—was a pivotal event in American history. Africans filled the labor void, providing profits and sparking economic expansion, but they were not willing workers. Resistance was a constant concern. Slaves disobeyed their masters, worked slowly, feigned sickness, destroyed and stole property, poisoned and harmed farm animals, attempted escape, and, in extreme cases, burned buildings, murdered their masters, and plotted revolts. The so-called children of Ham were, quite simply, deviant and dangerous: profitable social dynamite that needed close surveillance and a repressive system of social control.

Laws were the key to combating black resistance. Legislatures passed a variety of colony-specific laws aimed at controlling slave behavior and maximizing profits. South Carolina, a slave state, prohibited slaves from traveling without a pass, owning property, selling goods without a master's written permission, carrying weapons, or meeting in groups. Masters were required to thoroughly inspect cabins every two weeks to look for weapons. White citizens were allowed to stop and question blacks, ask for passes, and even seize inappropriate clothing. Freed slaves were required to leave the state. Laws in Dutch New Netherlands were decidedly less strict. Slaves were allowed to marry, attend church, own property, trade goods, seek an education, join the militia, and even carry weapons. But when the British took over New Netherlands in 1664, the new rulers of New York instituted a much more restrictive set of laws. New York became like South Carolina.

Masters were the first line of defense in monitoring slave behavior, enforcing these laws, and maintaining social order. In most colonies, short of murder, masters generally had a free hand in administering justice without trial. Other colonial law enforcement officers—sheriffs, constables, and night watchmen—also kept slaves and free blacks under close surveillance. When serious crimes were committed (e.g., murder, rape, assault, arson, rebellion), slaves were formally charged in court; in many colonies, however, they were denied even minimal legal rights and faced the prospect of harsh punishment. Punishment and deterrence aimed at instilling terror—not benevolent reintegrative shaming—was the aim of slave discipline.

U.S. political, economic, social, and legal institutions were radically transformed during the first half of the 19th century. Emancipation from England and the ratification of the Constitution and Bill of Rights laid the foundation for the rise of democracy and new state-specific crime-control systems. The publication of *The Wealth of Nations* (1776)—Adam Smith's classic work—and industrialization accompanied the early development and expansion of capitalism in the New World. Exploding immigration produced large cities, especially in the North, and a host of city-related problems, including crime and delinquency. Slavery remained essentially unchanged, however, especially in the South. Repressive laws and crass, unyielding social control were needed to maintain order and preserve profits.

The aims, structure, and character of early-19th-century criminal justice systems were, however, region-specific. Northern states developed formal criminal justice institutions largely aimed at the social control of immigrants, particularly the Irish, who were widely perceived as criminally inclined drunkards. Black criminals were a secondary concern. Southern states relied upon informal surveillance and social control. Slaves merited the closest scrutiny, but free blacks, Northern abolitionists, southern Negro sympathizers, and black and white criminals were all viewed as threats to the southern way of life. In short, the South was under siege.

Northern states responded to their crisis in crime and social disorder by introducing formal police systems. During the 1840s and 1850s, a number of large cities—such as New York, Boston, and Philadelphia—disbanded their ineffective night watch, restricted sheriffs and constables to court duties, and turned policing over to newly created law enforcement agencies. Although these new police departments were largely ineffective—policemen were unqualified, untrained, and corrupt—arrests increased. Courts were expanded to handle the increased volume of cases. Prisons and reformatories were introduced to hold offenders. The demographic profile of prison populations varied by state, but they were usually lower-class, white, urban immigrants and their children—the northern criminal classes.

Southern criminal justice was informal, decentralized, and aimed, first and foremost, at one group: slaves. Southern states expanded the content and harshness of slave codes prior to the Civil War. Masters continued to serve as the first line of policing and social defense. Slave patrols were expanded and more slave catchers were hired. Sheriffs, constables, and newly created police forces, located in larger southern cities, were constantly on the alert for escaped slaves, black and white criminals, and other threatening groups (e.g., abolitionists encouraging escape or revolt). Militias remained on high alert to deal with slave revolts. The laws in many southern states continued to grant all white citizens the authority to stop, question, and arrest free blacks and slaves. For free blacks and slaves, the South was a repressive police state.

Early-19th-century southern courts and systems of punishment were also racially driven. In fact, there were at least four court systems and four sets of legal procedures—white male, white female, black male, and black female—which provided no meaningful rights for members of these groups. Free blacks were often afforded an intermediate status. Black slaves accused of insurrection faced special tribunals that handed out harsh and swift punishments—often death—to prevent future transgressions. A number of southern states opened prisons prior to the Civil War, but they were almost exclusively reserved for white offenders. In the minds of many southerners, even the lowest white criminal was to be spared the humiliation and moral contagion of incarceration with "darkies" and "niggers."

The end of the Civil War and passage of the Thirteenth, Fourteenth, and Fifteenth Amendments to the U.S. Constitution filled freedmen with optimism and hope for

equality and justice. Blacks did, indeed, make considerable progress during Reconstruction, but these gains were short-lived. The triumph of the so-called Redeemers—white conservative racists—summarily ended these political, economic, social, and legal gains. The Redeemers were determined to return free blacks to their slave status. Laws and the criminal justice system, coupled with informal means of terror (e.g., lynching), were keys to putting blacks in their proper place and reviving the Old South.

The Redeemers began their calculated assault on black progress and civil liberties by seizing control of the political system. Newly elected white supremacists passed repressive legislation, including vagrancy laws aimed at fostering the sharecropping system. Sheriffs, constables, and newly formed police departments replaced masters, slave patrols, and slave catchers in intimidating former slaves. Black arrest rates soared, courts were overwhelmed with "colored" defendants, and southern prisons took on a new function: race control. After 1865, southern prisons and chain gangs were nearly completely black.

African Americans continued to be regarded as second-class citizens, especially in the South, throughout the first half of the 20th century. "Separate but equal" laws—legitimized by the U.S. Supreme Court's notorious *Plessy v. Ferguson* decision (1896)—kept blacks in a decidedly inferior status: schools and housing developments were rigidly segregated; blacks were excluded from government jobs and segregated in the military; they were isolated in whites-only businesses, including restaurants and movie theaters; and they were relegated to using colored-only water fountains and restroom facilities. Disenfranchisement was widespread; in some southern states, fewer than 5 percent of blacks were registered to vote in the 1950s.

Police forces in the South, and sometimes in the North, were exclusively white. Black faces were rarely seen in courts unless they were defendants. A variety of ruses were employed to exclude blacks from serving on juries. Blacks continued to be disproportionately incarcerated in southern and northern prisons. In many institutions, they were rigidly segregated. Black defendants were far more likely to receive the death penalty, especially for rape, and blacks who murdered whites were much more likely to receive the death penalty than whites who murdered blacks. Simply stated, black victims had less value than white victims in the U.S. criminal justice system.

Crass political, economic, and legal discrimination continued relatively unabated into the 1950s. The 1960s were, however, a pivotal period in U.S. racial and legal history. The rise of the black civil rights movement, women's rights movement, protests against the Vietnam War, and dozens of race riots in cities across the United States raised serious doubts about the veracity and legitimacy of the U.S. government. The promise of freedom, equality, and justice was exposed as sheer hypocrisy, especially for African Americans.

Critics also turned their ire on the U.S. criminal justice system. Television cameras provided graphic accounts of police beating black rioters in the North and civil rights

marchers, including children, in the South. The rise of criminal justice and criminology as academic disciplines in the 1960s resulted in an explosion of research highlighting disparities between the promise and practice of the justice system: inadequacies in the public defender system, the discriminatory dimensions of bail, abuses in plea bargaining, discrimination in the hiring and training of minority police, the paucity of minority judges and probation and parole officers, inhumane conditions and racial discrimination in prisons, and racial and class discrimination in sentencing and the application of the death penalty.

The U.S. Supreme Court, particularly under Chief Justice Earl Warren (1953–1968), issued a series of landmark rulings that expanded the legal rights of black and white defendants. Attempts were made to rehabilitate offenders, shut down prisons, and move offenders back to the community. Money was appropriated to improve public defender systems, offer bail to more poor offenders, hire more minority police officers, and divert offenders from the criminal justice system to avoid harmful labels. During this period and into the early 1970s, individual states and the federal government did, indeed, make progress in combating racism, sexism, and discrimination in the United States.

These trends and transformations were, however, short lived. The election of Ronald Reagan as president in 1980 marked the birth of a conservative revolution along with the bankruptcy of rehabilitation. Advocates of the new conservative paradigm argued that criminals were free, rational, and hedonistic actors who needed and deserved punishment. Discussions about racism, sexism, and discrimination—as well as questions raised about the fairness of capitalism and democracy—were dismissed as softhearted and soft-minded liberal drawl. A return to the policies of the past—a get-tough approach on crime and criminals—was the new elixir for crime and deviance.

During the 1980s and 1990s, conservative politicians and crime-control experts—joined, on occasion, by politically astute get-tough liberals, like President Bill Clinton—transformed the criminal justice system: a return to fixed sentencing, "three strikes and you're out" laws, preventive detention for suspected criminals, restrictions on the insanity defense, an end to minority hiring and promotion programs in policing, the increased use of transfers to adult courts for juveniles, boot camps for youthful offenders, electronic monitoring for offenders found guilty of less serious offenses, the opening of new prisons and reformatories, the introduction of "supermax" prisons, an expansion in the use of the death penalty, and a get-tough war on drugs.

Many of these policies have, however, had a decidedly detrimental effect on African Americans, and there is considerable evidence that remnants of racism are still pervasive in the U.S. justice system. Researchers have provided clear and convincing evidence that the death penalty continues to discriminate against the poor and powerless, particularly blacks. Public defender systems remain seriously underfunded, and prosecutors continue to use peremptory challenges to exclude blacks from juries. African Americans are still underrepresented on many police forces, especially in higher ranks. Egregious

INCARCERATION RATES

Since the 1980s the prison and jail population in the United States has increased dramatically; some estimate the increase to be as much as 500 percent. Today there are some 2.2 million people behind bars. The sharp rise in incarceration rates, moreover, is matched by an equally sharp rise in the proportions of African Americans and Latinos entering the nation's prisons and jails. Data from the Bureau of Justice Statistics indicate that African Americans are incarcerated at a rate that is nearly six times (5.6) the rate for whites, while Latinos are incarcerated at a rate that is nearly twice (1.8) the rate for whites.

Race/Ethnic Group	Rate per 100,000
White	412
Hispanic	742
Black	2,290

The national incarceration rate for whites is 412 per 100,000 residents, compared with 742 for Hispanics and 2,290 for African Americans. This means that 2.3 percent of all African Americans are incarcerated, compared with 0.7 percent of Hispanics and 0.4 percent of whites. The combination of age and economic disadvantage is also a key factor. One in nine (11.7 percent) African American males between the ages of 25 and 29 is currently incarcerated, most of them having come from severely disadvantaged neighborhoods (Mauer and King 2007).

cases of police abuse—for example, Rodney King (1991), Abner Louima (1997), and Amadou Diallo (1999)—confirm the suspicion that some law enforcement officers are still racially biased. And the discovery of the "driving while black" (DWB) syndrome in the 1990s provided evidence supporting ongoing African American suspicions and complaints: police officers discriminate against black drivers.

Mandatory sentencing laws and the war on drugs have, however, had a particularly harmful—if not disastrous—effect on African Americans. Racially biased legislation aimed at crack cocaine has resulted in an explosion in black incarceration. Millions of young African American males are currently incarcerated in state and federal correctional institutions or under the control of probation and parole officers. Jerome Miller's thought-provoking analysis of modern crime control reaches a sobering conclusion: the U.S. criminal justice system is engaged in a tragically misguided search-and-destroy mission aimed at young urban black males. Young black males—much like their slave ancestors—continue to comprise the class of dangerous criminals in the United States.

Key Events

Many key events have reflected and shaped the course of African American crime, criminal justice, and social control. Two broad classes of events, however, have played

a particularly important role in the treatment of African Americans: black revolts and lynchings.

Revolts

Prior to the Civil War, many defenders of slavery, particularly in the South, argued that Africans needed the guidance of white masters and mistresses. The accursed children of Ham were biologically, psychologically, socially, culturally, and spiritually inferior. Indeed, it would be immoral to leave black Africans to their own vices on the "Dark Continent" (meaning Africa). White masters provided slaves with food, clothes, shelter, and Christian moral instruction. Quite simply, slaves were happy to live in captivity.

Black revolts provide clear and convincing evidence that slaves were not, in fact, content to live in bondage. Herbert Apthecker's classic study of slave revolts—*American Negro Slave Revolts*—documents 250 cases of rebellion in the United States. (Apthecker's [1993, 162] definition includes a number of elements to be counted as rebellion: the act must have included at least 10 slaves; freedom was the primary aim; and contemporary accounts labeled it as an insurrection, revolt, or rebellion. A modified version—including acts containing five rebels—would result in many more revolts.) In fact, many slave masters lived in a state of abject terror. Laws and criminal justice systems in colonial and 19th-century slave societies were, in large part, structured to detect and deal with black rebels, and the penalties were swift and severe.

The 1741 "great negro plot" in New York City, as one example, resulted in a bloody state response: 170 people were put on trial—a performance that was largely devoid of accepted colonial legal procedures. A total of 70 blacks and 7 whites were banished from British North America, 16 blacks and 4 whites were hanged, and 13 blacks were burned at the stake. Revolts led by Gabriel Prosser in Virginia in 1800, Denmark Vesey in South Carolina in 1822, and Nat Turner in Virginia in 1831 were all thwarted, largely owing to black spies. Prosser, Vesey, Turner, and dozens of their black coconspirators were put to death. As in New York City, no efforts were spared in crushing black rebels.

Revolts did not, however, affect only white masters and slave rebels. Whites who did not own slaves also lived in fear, knowing that black revolutionaries would not restrict killing to their masters. Moreover, slave revolts—rumored or real—always had harsh consequences for free blacks and slaves. Masters, slave patrols, sheriffs, and militias invariably launched so-called rebel sweeps to uncover weapons and black revolutionaries. Black revolts also provided abolitionists with a valuable propaganda tool: if slaves were happy living in captivity, why were they revolting?

Lynchings

The liberation of millions of slaves following the Civil War created a panic in the South. Conservative white southerners could not rely upon northern carpetbagger governments

to prevent crime and maintain order. A new type of informal social control was employed: lynching.

The historical record is far from complete, but more than 5,000 cases of lynching have been documented, with most occurring in the South between 1880 and 1920. Black men, women, and children were hung, shot, stabbed, burned, dismembered, and put on display—sometimes in public places, like courthouses—in an effort to instill terror and remind blacks of their so-called proper place in the U.S. economic, political, social, cultural, and legal order. The rape or alleged rape of a white woman was one of the primary rationales for lynching, but thousands of blacks were lynched for other so-called offenses, such as stealing a chicken, uttering an insulting remark, making a sarcastic grin, calling to a white girl, talking big, failing to yield the sidewalk, failing to remove a hat, and refusing to remove a military uniform.

"Nigger hunts" and "coon barbecues" were, by design, savage affairs, often witnessed by thousands of spectators. In 1918, Mary Turner, who was eight months pregnant, was hung for threatening to press charges against mob members who lynched her husband. Before she died, her baby was cut from her stomach and stomped to death. A Texas jury convicted Jesse Washington of raping a white woman after four minutes of deliberation. The mob did not wait for sentencing. Washington was dragged from the courtroom, kicked, stabbed, and pummeled with rocks and shovels. At the execution site, he was suspended from a tree limb and doused with oil. His fingers, toes, ears, and penis were cut off. Then he was burned alive. His body was dragged through town by a man on horseback. The lynching of Will Porter in Livermore, Tennessee, in 1911 for shooting a white man was particularly bizarre. The mob took him to a theater, tied him to a chair on the stage, and sold tickets. Those who purchased orchestra tickets got six shots at Porter, balcony seats only one.

Blacks knew that they could not count on government officials to protect them from lynch mobs. Some law enforcement officers showed extraordinary courage in defending their charges. Several were killed or severely injured in the course of doing their job. The historical record indicates, however, that other law enforcement officers willingly handed alleged black criminals over to mobs and, in some cases, coordinated extralegal executions. Lynch-mob members did not wear masks, and photographs were often taken of the lynched as a trophy for the perpetrator. However, police investigations invariably reported that victims were killed by persons unknown or, in extreme cases, that they had committed suicide. A number of southern governors, senators, and congressmen openly advocated lynching, particularly for the crime of violating a white woman, and bragged about their participation in lynching mobs.

Lynching was enormously successful. Well into the 20th century, African Americans lived in fear, knowing that they could be murdered for any reason at any time. Walter White and Thurgood Marshall were both, on several occasions, nearly lynched. If the head of the National Association for the Advancement of Colored People (NAACP)

and the nation's first African American Supreme Court justice came close to being murdered, who could be safe from the fury of the white mob?

Important Persons and Legal Decisions

Frederick Douglass (1817–1895), an escaped slave from Maryland, was the foremost intellectual leader and spokesman for African Americans during the 19th century. Douglass was a powerful lecturer for the abolitionist movement and achieved national and international fame with the publication of his autobiography, *Narrative of the Life of Frederick Douglass: An American Slave* (1845). This book—along with two other extended autobiographies and his work as editor of black newspapers (*North Star* and *Frederick Douglass' Paper*)—provided him with a forum to attack slavery and call for basic civil liberties for African Americans.

Douglass's pre–Civil War speeches and writings examined a variety of topics: for example, the kidnapping of blacks from Africa, the horrors of the African passage, the hypocrisy of Christian slave masters, the immorality of breaking up black families, and the failures of the U.S. Constitution and Bill of Rights. Douglass served as an advisor to President Abraham Lincoln and played an instrumental role in the formation of black military units during the Civil War. After the Civil War, Douglass worked for broader political, economic, and legal rights, including the enforcement of voting rights laws and an end to Jim Crow laws and lynching. Douglass's work as an abolitionist, orator, writer, newspaper editor, political activist, and statesman provided 19th-century African Americans with an articulate voice: the herald for freedom and justice.

Sojourner Truth (1797–1883), an escaped slave from New York, and Harriet Tubman (1820–1913), an escaped slave from Maryland, also made important contributions to the battle for justice. Truth, who was illiterate, made her impact as a charismatic speaker. She moved audiences with calls for an end to slavery and, in particular, distinguished herself from Douglass by calling for women's political and legal rights. Tubman, however, was the most courageous black civil rights leader. After escaping in 1849, she made numerous trips back into the South (between 17 and 20, depending upon the source)—knowing that she risked summary execution—and led several hundred slaves to freedom. Harriet Tubman, the legendary symbol of black resistance, was hailed as the Black Moses.

The late-19th- and early-20th-century black civil rights movement was dominated by two leaders who were, in fact, mortal enemies: Booker T. Washington (1856–1915) and W.E.B. Du Bois (1868–1963). Washington was, without question, the most powerful, controversial, complex, and divisive black leader. He was an educator who achieved national fame—especially among whites—by calling on blacks to accept gradual progress toward civil rights and focus on agricultural endeavors and vocational occupations. Du Bois, a brilliant scholar who was Harvard University's first black graduate, ridiculed Washington, called for immediate rights, and urged blacks to seek higher education. Washington used millions of dollars in contributions from white benefactors

to build his followers into what northerners called the "Tuskegee Machine." Washington's machine smeared, blacklisted, and spied on Du Bois and other black leaders who opposed his philosophy. While Washington was destroying his opposition, however, he was secretly financing many of their causes, including legal challenges against Jim Crow. Ultimately, Du Bois prevailed. But after a lifetime of extraordinary achievement, including playing an instrumental role in the founding of the NAACP, he became thoroughly disenchanted, renounced his U.S. citizenship, and moved to Ghana, where he died in 1963.

Thurgood Marshall (1908–1993) was the most important champion for black legal justice. He became intimately familiar with racial repression and Jim Crow laws while growing up in Baltimore, Maryland. After graduating from Howard Law School, he became chief legal counsel to the NAACP. Marshall coordinated the NAACP's legal assault on *Plessy v. Ferguson* and Jim Crow laws and actually presented oral arguments in the landmark *Brown v. Board of Education* (1954) case before the U.S. Supreme Court. Marshall went on to become the nation's first African American solicitor general, attorney general, and U.S. Supreme Court justice. He continued to serve as the voice of the poor and powerless, denouncing institutional racism from his seat on the Supreme Court, until declining health forced him to resign in 1991.

Martin Luther King Jr. (1927–1968) has generally been recognized as the father of the modern civil rights movement. King played an instrumental role in the founding of a number of leading civil rights organizations in the 1950s and 1960s. Adopting a Christian–Gandhian model, he coordinated marches and protests and urged his followers to use passive resistance—not violence and riots—to rally world opinion and force an end to racial discrimination. Television coverage of the civil rights movement's most prominent leader and his followers being arrested and handcuffed by police on numerous occasions attracted attention to his cause and shamed the nation. King's brilliant "I Have a Dream" speech, delivered at the March on Washington rally in 1963, has been widely hailed as one of the most important moments in the history of the civil rights movement. King's assassination in Memphis, Tennessee, in 1968 shook the nation, delivering a clear message: Modern white supremacists, much like lynchers of the past, were willing to kill to keep African Americans in their so-called proper place.

Landmark legal decisions also provide important insights into African Americans' ongoing battle for political, economic, social, and legal justice. Key 19th-century decisions leave little doubt that U.S. Supreme Court justices, much like the rest of the country, were torn over the issue of racial equality; however, they opted for repression. In the 1856 Dred Scott decision, the Court ruled that slaves who traveled to free states could not sue for freedom because they were chattel and had no legal standing. Chief Justice Roger Taney explained that slaves were "a subordinate and inferior class of beings, who had been subjugated by the dominant race, and, whether emancipated or not, yet remained subject to their authority, and had no rights or privileges but such as those who held the

power and the Government might choose to grant them." In *United States v. Cruikshank* (1875), the Court issued a ruling that had the effect of limiting the federal government's power to intervene in cases of black voter disenfranchisement and lynching. In *Plessy v. Ferguson* (1896), the Court legalized the "separate but equal" doctrine, making blacks inferior citizens well into the 1960s.

Since the late 1960s, the U.S. Supreme Court has, without question, played an instrumental role in dismantling overt legal repression. The Court has, however, demonstrated ambivalence on a number of important issues, including the death penalty. In the 1972 *Furman v. Georgia* decision, the Court ruled that the death penalty was being applied in an arbitrary, capricious, and racist manner and was, as a result, cruel and unusual punishment. In the 1976 *Gregg v. Georgia* decision, the Court reinstated the death penalty, permitting two-stage death penalty proceedings. *McCleskey v. Kemp* (1987), however, reflected the Court's legal and moral ambivalence. The Court conceded, after examining empirical evidence, that Georgia's court system was indeed racist. Nevertheless, they ruled against Warren McCleskey, who was subsequently executed, on the grounds that the statistical evidence did not prove discrimination in this specific case. In future cases, the Court shifted the burden of proof in death penalty cases back to the defendant: each black defendant would have to prove discrimination in his or her particular case, thus posing what was, to be sure, a costly, difficult, and unlikely challenge.

Conclusion

The history of African American crime, criminal justice, and social control is indeed troubling. From colonial times into the 1950s, blacks were subjected to overt and crass political, economic, social, cultural, and legal oppression. The U.S. Constitution and Bill of Rights—along with noble claims of freedom, equality, and justice—clearly did not apply to black Americans.

Much progress has been made. The separate but equal doctrine has been dismantled. Blacks are no longer riding in the backs of trains and buses, attending legally segregated schools, or drinking out of "colored only" water fountains. African Americans are not excluded from law enforcement positions or other government jobs, nor are they denied admission into colleges and universities. They have been afforded, at least on paper, all of the legal rights accorded whites. A trip to almost any court reveals black judges, defense attorneys, prosecutors, and probation officers. African Americans are in charge of police departments in many of the largest U.S. cities, and black wardens can be found at the heads of local, state, and federal correctional institutions across the country.

For conservatives, this progress provides clear and convincing evidence that the American dream has finally been fulfilled. Blacks have overcome the discrimination of the past and are now fully accepted citizens, enjoying the full protection of the state. But liberals remain unconvinced. African Americans, who have experienced generations of systematic repression, are particularly skeptical. The remnants of racism—particularly the

explosion in black incarceration and continued disproportionate execution of poor black offenders—raise serious questions about the hidden dimension of race control, resurrecting the specter of the past. History matters. The color of justice in the United States remains, then, a matter of personal perception—a battleground for future generations.

See also **Alternative Treatments for Criminal Offenders; Class Justice; Miscarriages of Justice; Police Brutality; Police Corruption; Prison Construction; Social Justice; War on Drugs**

Further Reading

Apthecker, Herbert, *American Slave Revolts.* New York: International, 1993 [1943].

Barak, Gregg, Paul Leighton, and Jeanne Flavin, *Class, Race, Gender, and Crime: The Social Realities of Justice in America.* Lanham, MD: Rowman & Littlefield, 2007.

Friedman, Lawrence, *Crime and Punishment in American History.* New York: Basic Books, 1993.

Kennedy, Randall, *Race, Crime and the Law.* New York: Pantheon, 1997.

Mann, Coramae, Marjorie S. Zatz, and Nancy Rodriguez, eds., *Images of Color, Images of Crime: A Reader.* New York: Oxford University Press, 2006.

Mauer, Marc, and Ryan S. King, *Uneven Justice: State Rates of Incarceration by Race and Ethnicity.* Washington, DC: Sentencing Project, 2007.

Miller, Jerome G., *Search and Destroy: African-American Males in the Criminal Justice System.* New York: Cambridge University Press, 1996.

Muhammad, Khalil Gibran, *The Condemnation of Blackness: Race, Crime, and the Making of Modern Urban America.* Cambridge, MA: Harvard University Press, 2010.

Provine, Doris Marie, *Unequal under Law: Race in the War on Drugs.* Chicago: University of Chicago Press, 2007.

Russell-Brown, Katheryn, *The Color of Crime,* 2d ed. New York: New York University Press, 2008.

Tonry, Michael, *Malign Neglect: Race, Crime, and Punishment in America.* New York: Oxford University Press, 1995.

Walker, Samuel, Cassia Spohn, and Miriam DeLone, *The Color of Justice: Race, Ethnicity and Crime in America,* 4th ed. Belmont, CA: Wadsworth, 2006.

ALTERNATIVE TREATMENTS FOR CRIMINAL OFFENDERS

Dianne Williams and Jessica Williams

The general public, not to mention law enforcement and policy makers, seems to believe that, aside from the death penalty, incarceration is the most severe form of punishment the criminal justice system can impose. In fact, the notion of a continuum of criminal justice sanctions typically places probation on the low end and imprisonment on the high end, with a variety of alternative sanctions falling somewhere in between (Petersen and Palumbo 1997). Unfortunately, the development of a continuum of

alternative responses in crime control and the ranking of these alternatives have been developed by legislators and policy makers who had no reliable means of rating the severity of the sanctions imposed, had little or no access to experiential data, and depended primarily on individuals with no firsthand knowledge of the actual impact of the alternatives (Morris and Tonry 1990). As such, the common belief that penal–correctional sanctions must be bound by probation at the one end and imprisonment at the other may not only be misleading in many contexts but also represent the fundamental controversy underlying the development of alternative responses to crime—namely, that there is anything but a consensus on what constitutes an alternative and on what the alternative is alternative to.

In other words, politicians have their notions of severity and leniency, as do criminals, psychologists, penologists, criminologists, and risk-management specialists. There is no agreement between these persons or more generally between those engaged in law enforcement, prosecution, adjudication, and punishment/corrections about which particular alternatives should be used in response to a myriad of offenses. At the same time, over the years, there have been tangible changes in ideologies, theories, and practices associated with society's different responses to crime. As a result, alternatives—or perhaps more accurately, new emphases, some innovative and others not—emerge and develop and become mainstream; then other alternatives to those emerge and develop.

Background

Traditionally, criminal sanctions had four goals: (1) Retribution/punishment, which also connotes the dispensing or receiving of reward or punishment according to what the individual deserves. It implies the payment of a debt to society and thus the expiration of the offense and is codified in the biblical injunction "an eye for an eye." (2) Rehabilitation, which was the major reason for sentencing in the mid-20th century. It is a utilitarian philosophy, defined as the process of restoring an individual (a convict) to a useful and constructive place in society through some form of vocational, correctional, or therapeutic retraining or through relief, financial aid, or other reconstruction measure. (3) Incapacitation, which refers to the deprivation of legal/constitutional freedom and the ability to perform certain civil acts. Its main purpose is to remove offenders from society. (4) Deterrence, with specific and general deterrence based on a utilitarian philosophy that focuses on an understanding of human behavior. It works best when individuals believe they will get caught and punished and when their punishment is severe enough to represent a threat. The concept of restoration, meaning "reparation," or restoring an individual or a community to a state that existed before the crime was committed, was added later on as a fifth goal. The concept of alternatives was developed in an attempt to modify and/or expand the way in which society sanctions criminal acts. Over time, the goals of these sanctions have evolved, which has led to a necessary change in the sanctions themselves.

For example, correctional leaders began to embrace the idea of combining a psychology about personality and human development to probation in the 1940s. They began to emphasize a medical model for probation, and rehabilitation (as opposed to punishment) became the overriding goal. This medical model was popular until the 1960s, when it was replaced by the reintegration model. The main thrust of the reintegration model was to reduce the rate of recidivism by making the prisoner's return to the community easier. The reintegration model assumed that crime was a direct result of poverty, racism, unemployment, unequal opportunities, and other social factors.

The concept of probation underwent yet another change in the late 1970s and remains that way today. The goals of rehabilitation and reintegration have been replaced by what is referred to as *risk management* (Petersilia, Turner, Kahan, and Peterson 1985). The risk-management approach attempts to minimize the probability that any given offender will commit new offenses by applying different degrees of control over the probationer's activity based on the probationer's assessed degree of risk. In essence, the risk-management approach is a combination of the just desserts model (i.e., the severity of the punishment should equal the seriousness of the crime) of criminal sanction and the idea that the community must be safe.

In the 1960s and early 1970s, legislation was also passed to establish financial and programmatic incentives for community corrections. (In 1965, California passed the Probation Subsidy Act. In 1973, Minnesota passed the first comprehensive Community Corrections Act. In 1976, Colorado passed legislation patterned after Minnesota's. In 1978, Oregon passed similar legislation.) The incentives were expected to embrace a wide range of alternatives to incarceration from which judges and other officials could choose. The main goal was to alleviate prison overcrowding, support prisoner reintegration, and reduce rates of recidivism. In 1971, the incarceration rate was 96 per 100,000. By 2003, the rate was 477 per 10,000 (Clear, Cole, and Reisig 2006).

Today, despite research findings demonstrating that offenders perceive the pains of punishment in only one way, policy makers generally categorize alternatives into two categories: (1) low-control alternatives for the less severe crimes or low-risk offenders (e.g., fines or restitution, community service, drug/alcohol treatment, probation, intensive supervision probation, and home confinement) and (2) high-control alternatives for the more serious crimes or high-risk offenders (e.g., boot camp, shock incarceration, and community supervision). Simple probation lies at one end of the continuum (less severe punishment or low-control alternatives) and traditional incarceration at the other end (most severe punishment).

High-control alternatives, although not as severe as incarceration, are seen as the last option before incarceration. On the other hand, studies show that offenders ranked seven alternative sanctions more severely than prison: (1) boot camp, (2) jail, (3) day reporting, (4) intermittent incarceration, (5) halfway house, (6) intensive supervision probation, and (7) electronic monitoring. They viewed prison as more punitive only compared with

community service and regular probation (Wood and Grasmick 1999). Regardless of rank in the punishment continuum, the goal of these alternatives is to reintegrate offenders into the community. These alternatives move away from the medical model and, in fact, suggest that the use of prisons should eventually be avoided altogether. In this approach, probation would be the sentence of choice for nonviolent offenders so as to allow them to participate in vocational and educational programs and ultimately make their adjustment to the community easier.

Legal Developments

Approximately two-thirds of adults under the supervision of the criminal justice system live in the general community while on either parole or probation. As discussed throughout this entry, probation is a type of community sentence in which the individual is remanded to some form of community supervision either as punishment for a crime or as a part of a sentence (usually after spending a portion of the sentence in prison). Although there is no right to parole and these individuals are still under the legal control of the correctional system, they, just like those who are incarcerated, still have rights. Therefore, while they are in the community, probationers and parolees enjoy a conditional liberty that is dependent on and regulated by very specific restrictions. These restrictions, by their very nature, may violate the constitutional rights of the probationer/parolee. For example, these individuals are denied the right of free association with prior crime partners or victims. However, because of cases such as *Griffin v. Wisconsin* (1987), parolees are now able to give public speeches and receive publications.

Another legal question arises with respect to probationers and parolees who violate the terms of their probation or parole. The rule of thumb in such cases is that the offender may be sent to prison. Additionally, if the offender commits another crime, his or her probation or parole will likely be revoked. For minor violations (e.g., missing a meeting of Alcoholics Anonymous), the probation/parole officer may decide to how severe the penalty should be. Having said that, the Supreme Court has had to address the issue of due process when revocation is an option.

In the case of *Mempa v. Rhay* (1967), the U.S. Supreme Court determined that a probationer has the right to be represented by counsel in a revocation or sentencing hearing before a deferred prison sentence can be imposed. Additionally, in *Morrissey v. Brewer* (1972), the Court ruled that parolees faced with the possibility of the revocation of parole must be afforded prompt due process before an impartial hearing officer.

Controversial Aspects within the Alternatives

In evaluating the benefits of alternatives, some researchers have noted that "An expanded range of sentencing options gives judges greater latitude to exercise discretion in selecting punishments that more closely fit the circumstances of the crime and the offender" (DiMascio n.d.). They have argued that this type of scheme, if administered effectively,

would free up prison cells for violent offenders, whereas less restrictive alternatives would be used to punish nonviolent offenders. Prison overcrowding, the cost of prisons, and the increasing recidivism rates have contributed to the creation of alternatives within the criminal justice system. (Recidivism is the recurrence of a criminal behavior by the offender. Rates of recidivism can be assessed in three ways: by rearrest, reconviction, and reincarceration.) Prisons now account for approximately 80 percent of every correctional dollar spent, and U.S. prisons cost $2.45 billion in 1996. Increasing rates of recidivism seem to be directly related to increasing rates of rearrest, reconviction, and reincarceration, which, in turn, result in the increasing need for prison space. Alternatives to the traditional types of punishment (more specifically imprisonment) within the criminal justice system were the result of a need to change this trend. However, there is a growing body of research suggesting that many offenders actually have a negative perception of alternative sanctions (May, Wood, Mooney, and Minor 2005). In fact, some studies suggest that a significant number of offenders actually believe that serving time in prison is easier than many alternatives; depending on the alternative, up to one-third of offenders refused to participate even if it meant a shorter prison stay (May, Wood, Mooney, and Minor 2005). Some of the reasons given for choosing imprisonment over alternatives include (1) concerns about abuse of power and antagonism by the personnel who run the program and (2) the likelihood that the program would fail, resulting in revocation to prison after time and effort had been invested in the program.

Pretrial Diversion

Pretrial diversion is the first and perhaps most important alternative within the criminal justice system. It allows the defendant to agree to conditions set forth by the prosecutor (e.g., counseling or drug rehabilitation) in exchange for the withdrawal of charges. This concept began because of a belief that the formal processing of people through the criminal justice system was not always the best course of action (Geerken and Hayes 1993). There are three main reasons given for the use of pretrial diversion: (1) many of the crimes committed were caused by offenders with special circumstances, such as vagrancy, alcoholism, emotional distress, and so forth, which cannot be managed effectively within the criminal justice system; (2) formal criminal justice labeling often carries a stigma that actually hurts or cripples attempts at rehabilitation and in the long run can promote an unnecessarily harsh penalty for a relatively minor offense; and (3) the cost of diversion is cheaper than the cost of criminal justice processing.

The concept of diversion is very controversial because some argue that it allows offenders to get off easy. Yet there are also those who argue that the rationale for diversion is sound because incarceration, in effect, does nothing to change the offender's disadvantaged status and the stigma of conviction will ultimately decrease the offender's chances of becoming a productive citizen. Nonetheless, support for diversion seems to wax and wane depending on whether society supports the rehabilitation or incarceration of offenders.

Despite mixed success, critics view pretrial diversion programs negatively as they are applied in expanding the state's authority or widening the net of social control.

In other words, the reach of this alternative correctional program targets or sanctions individuals charged with less serious offenses more seriously than originally intended.

Intensive Supervision Probation

According to the Bureau of Justice Statistics (BJS) *1997 Special Report* (Bonczar and Glaze 1999), approximately 10 percent of all probationers and parolees who participate in alternative sanction programs are under intensive supervision probation. This approach was designed in the 1980s in response to the issue of prison overcrowding. Specifically geared research was conducted to identify a solution, and it was determined that there were a small number of inmates who could, under the right circumstances, be released into the community with minimal risk to the public (Petersilia and Turner 1990). Two hundred inmates were initially selected, but over time the number has risen to well over a thousand participants. Over a four-month period, the inmate must file an application, which must be approved by a three-person screening panel. If approved, a resentence hearing must be held before three judges. If the judges approve the application, the inmate will begin a 90-day trial period of intensive supervision probation. Despite some shortcomings, this program has been extremely helpful in relieving prison overcrowding.

Yet 10 years after its inception, research showed that nearly one-third of nonviolent offenders who were given the option to participate in intensive supervision probation chose prison instead (Petersilia 1990). They felt that the combination of having to work every day, having to submit to random drug tests, and having their privacy invaded was more punitive that serving a prison term. A significant number also indicated that intensive supervision probation had so many conditions attached to it that there was a high probability of violating a condition and being revoked back to prison. These offenders viewed intensive supervision probation as more punitive than imprisonment and equated one year in prison to five years of intensive supervision probation.

Substance Abuse Treatment/Intensive Parole Drug Program (IPDP)

As the title indicates, the Intensive Parole Drug Program (IPDP) is an intensive supervision program for parolees with a history of substance abuse (drugs and alcohol). This program was implemented in certain states as a part of the Department of Corrections' "Stop the Revolving Door" initiative, which has an antirecidivism focus. The program focuses on relapse prevention, intervention strategies, and counseling referrals. Sanctions may include community-based treatment, residential placement, or return to custody with institutional program treatment. Any parolee identified as having a substance abuse problem can be referred (Clear, Cole, and Reisig 2006). Candidates come from a range of programs—from therapeutic community programs to mutual agreement programs or from halfway houses. IPDP is a six-month-minimum program with participants having

the option to stay an additional three months. The issue with these types of programs is that although some offenders welcome the opportunity for treatment, they feel that the intrusive nature of the program itself outweighs any possible benefit. As is the case with other programs, offenders who are offered the opportunity to participate frequently decline and choose to serve time instead.

Electronic Monitoring and House Arrest

Electronic monitoring and house arrest are typically used together in conjunction with intensive supervision. House arrest restricts the offender to home except when at school, work, or court-assigned treatment, and electronic monitoring becomes the technological means of securing compliance. Electronic monitoring has been described as the most important penal invention of the 1980s ("The 2002–2003 Electronic Monitoring Survey" 2002). It tries to incorporate some of the goals of criminal justice sanctions yet fits into a category all its own. Electronic monitoring is a "supervision tool that provides information about the offender's presence at, or absence from, his or her residence or other location" (State of Michigan 2006). Although the system does not track offenders' whereabouts like a homing device, it is able to determine if offenders are at home when they should be.

Harvard psychologist Robert Schwitzgebel (Gomme 1995, 489–516) developed the first electronic monitoring device in the mid-1960s. He felt that his invention could provide a humane and inexpensive alternative to custody for many people involved in the justice process. The goal of an electronic monitoring system is to provide community supervision staff with an additional tool to intensely supervise offenders who are not incarcerated. This form of supervision does not support any form of treatment or assistance, but it is more cost-efficient than incarceration, which provides a direct contrast and alternative to incapacitation or imprisonment. Critics of electronic monitoring argue that the concept is self-serving for the manufacturers of the house-arrest equipment. The also argue that there are many rehabilitative-type services and products available but point out that these services are labor-intensive and expensive and would no doubt eat into the corporation's profits.

Boot Camp and Shock Incarceration

Boot camps combine basic elements of both rehabilitation and retribution. They provide rigorous physical activity that many believe to be more beneficial than punitive alternatives. "Boot camps are highly popular residential alternatives (intermediate sanctions) typically used for young offenders which provide for very structured and military-like activities such as strict discipline, physical training and labor, drill, and a regimented schedule of daily activities" (Rush 2004). A sentence of boot camp, also known as shock incarceration, is usually for a relatively short time, approximately three to six months.

The first boot camp programs were implemented in Georgia and Oklahoma in 1983 to help relieve prison and jail crowding. They were first developed in the adult criminal

justice system and then expanded to the juvenile justice system (MacKenzie, Wilson, and Kider 2001). Boot camps were created for several reasons. As mentioned previously, one of the main goals of alternatives is to alleviate the overcrowding of prisons. That is, "certain offenders who would normally be sentenced to a prison term (e.g., two to four years) are diverted to a shorter, yet equally punitive and effective, boot camp sentence (e.g., 90 to 180 days)" (Begin 1996).

Deterrence (both specific and general) is inherent in the concept of shock incarceration. The hope is that the shock of incarceration will serve both as a deterrent specific to the criminal and the crime as well as a general deterrent to would-be criminals in the immediate community. Boot camp is considered one of the most demanding alternatives, and the findings on its effectiveness as a deterrent to offenders committing further crimes is mixed at best. Moreover, more often than not, offenders who are offered the opportunity to serve a sentence in boot camp instead of in prison opt to serve prison time because boot camp is seen as being more intrusive than prison.

Day Reporting Centers (DRCs)

Day reporting centers (DRCs) are community-based facilities that provide a strict regimen of supervision and programming for ex-offenders. The 1980s began the era of the use of DRCs in the United States, but this concept actually originated in England as a way of reducing the prison population. The goal of DRCs is to combine high levels of control over offenders so as to meet public safety needs while providing intensive services to address the rehabilitative needs of the offender. Day reporting is an alternative that completely eliminates the cost of jail for these offenders because they do not require housing or confinement.

The rationale behind the implementation of this type of alternative is that sometimes the crime committed does not justify a jail sentence. In fact, it has been argued that some offenders are by nature more responsive to less severe punishment and that they may actually be harmed, more than their crime may merit, by serving a jail term. The use of DRCs would allow offenders to report to a location in a manner similar to reporting to a probation officer. Offenders in this program would be required to account for their activities during the day, including job-searching activities for those participants who are unemployed. Offenders would also be subjected to daily drug and alcohol testing, as would regular offenders. Failure of either of these mandatory tests would result in disqualification from the program.

Day reporting incorporates three of the sanctions that were discussed earlier, and it is in keeping with these that the goals of this type of alternative are formed. As such, the objectives of DRCs are threefold: (1) punishment through restricting clients' activity and requiring community service; (2) incapacitation through intensive supervision, firm enforcement of attendance agreements, and strict adherence to program structure; and (3) rehabilitation through services aimed at "enabling the unable by developing social and survival skills, remedying deficiencies in education, and increasing employability" (Begin 1996).

Daily programming includes but is not limited to educational/vocational training, drug/alcohol treatment, anger management, and conflict resolution. Many of the alternatives are implemented for the purpose of combating the overcrowding and enormous cost of imprisonment. In order to reduce the cost of prisons, the criminal justice system "requires that sanctions be tailored as carefully as possible to ensure that they provide only the supervision or services necessary to achieve their intended goal(s)" (Begin 1996). Alternatives, therefore, present more effective methods of reducing society's total spending on the correctional system in general and the prison population specifically.

The work crew is another option that allows qualifying offenders to work off a portion of their sentence and/or their fine by working on public works projects selected and supervised by participating jurisdictions (Clear 1994). In the end, the amount of work that the offender does for the time period is assessed and deducted from the total sum of time he or she would have spent incarcerated. It is important to note that the difference between the work crew just discussed and work release is that the latter is an option some jurisdictions use to allow individuals to continue to work at their existing jobs according to their established schedule, but they must reside at the jail overnight (Gill 1967). This alternative reduces the cost to correctional institutions for daily services; however, those work release programs that do not have work release centers still require jails to cover the cost of night services.

Residential Community Correctional Facilities (Halfway Houses)

Halfway houses are residential facilities designed to (1) house adult offenders (with at least 70 percent of its residents placed by federal, state, or local authorities), (2) operate independently of the other corrections institution, and (3) permit clients to leave the premises during the day for work, education, or community programs. Additionally, halfway houses are critical in rehabilitating ex-offenders. In addition to providing high levels of surveillance and treatment, the 24-hour residency makes these facilities the community sanction that is closest to the total institutional setting of a prison or jail (halfway between prison and freedom) because, despite the setting, the movements, behavior, and mood of the residents can be continuously monitored.

Halfway houses also provide a safe haven for offenders who have been confined for long periods of time, allowing a smooth transition back into the community. Some offenders who live in halfway houses can actually work and pay rent. They are allowed to leave only to report to jobs, and they must return promptly at the end of the workday. In essence, halfway-house residents have more freedom and responsibility than people in prison but less freedom than ordinary citizens.

A halfway house is a "rehabilitation center where people who have left an institution, such as a hospital or prison, are helped to readjust to the outside world" (Caputo 2004, 72).

Recidivism was a major concern for the criminal justice system, and this form of alternative was supported as a way to combat it. Another purpose of halfway houses is to monitor those offenders just leaving prison to make sure that they are ready to function in society again. It was implemented to also give offenders the opportunity to gradually recondition themselves to the world. The offender is leaving a structured environment in prison, and the halfway house provides a transitioning period for the offender to enter a free public. Thus, halfway-house residents have greater freedom and responsibility than people in prison but less freedom than ordinary citizens (Nelson, Deess, and Allen 1999). Owing to the existence of halfway houses in the community, some safety concerns exist. Such concerns are limited when compared with situations where offenders were released from prison directly into society without any formal supervision.

Another benefit of halfway houses is that an offender must perform community service in the form of manual labor for the government or private, nonprofit organizations without receiving any payment. The courts, on a discretionary basis, determine the number of community service hours an offender must serve.

Fines

Fines are typically used in conjunction with other sanctions, such as probation and incarceration (a typical sentence would be two years' probation and a $500 fine). The biggest complaint about fines as a sanction is the difficulty of collection. A significant number of offenders are poor and simply cannot afford to pay them. On the other hand, judges also complain that well-to-do offenders will be in a better position to meet the financial penalty and less likely to learn the lesson the penalty was intended to teach.

As a result, several states—including Arizona, Connecticut, Iowa, New York, and Washington—have tested an alternate concept referred to as a *day fine,* developed in Sweden and Germany, which imposes a fine based on a fixed percentage of the offender's income. The day fine concept ensures that the financial penalty imposed on the offender will have the same impact regardless of income.

Forfeiture

Forfeiture is the act of seizing personal property (e.g., boats, automobiles, or equipment used to manufacture illegal drugs), real property (e.g., houses), or other assets (e.g., bank accounts) derived from or used in the commission of illegal acts. Forfeiture can take both civil and criminal forms. Under civil law, the property can be seized without an actual finding of guilt. Under criminal law, however, forfeiture is imposed only as part of the sentence for a guilty verdict.

The practice of forfeiture was not actually used after the American Revolution but became more popular with the 1970 passage of the Racketeer Influence and Corrupt Organizations (RICO) Act and the Continuing Criminal Enterprise (CCE) Act. As

its popularity grew in usage, congressional amendments were made to streamline implementation in 1984 and 1986 (Spaulding 1989).

Community Service and Restitution

The concepts of community service and restitution are relatively new alternatives. "Community service is a compulsory, free, or donated labor performed by an offender as punishment for a crime" (Inciardi, Martin, and Butzin 2004; Parent and Barnett 2002). "Community service can be arranged for individuals on a case by case basis or organized by correctional agencies as programs" (Inciardi, Martin, and Butzin 2004; Parent and Barnett 2002). Community service provides a chance for offenders to give back to the community for the wrong that they did to society.

The first documented community service program in the United States was implemented in Alameda County, California, in 1966 (Inciardi, Martin, and Butzin 2004; Parent and Barnett 2002). Community service sentencing first began when it was found that many indigent women were forced to go to jail because they could not afford traffic and parking fines. "To avoid the financial costs of incarceration and the individual cost to the offenders [who were often women with families], physical work in the community without compensation was assigned instead" (Inciardi, Martin, and Butzin 2004; Parent and Barnett 2002). This alternative had such outstanding results that it spread nationwide into the 1970s. It was advocated by the idea of "symbolic restitution," whereby offenders, through good deeds in the form of free labors benefiting the community, symbolically repaid society for the harm they had caused (Inciardi, Martin, and Butzin 2004; Parent and Barnett 2002).

Restitution is often viewed as financial compensation, but it can also take the form of community service hours at a community project. Both community service and restitution operate under the assumption that the offender's personal or financial contribution to the victim or the community will compensate for any loss caused by the offender's illegal behavior.

An offender is usually given community service in conjunction with restitution. "Restitution is the payment by the offender of the costs of the victim's losses or injuries and/or damages to the victim" (Department of Health and Human Services 2005, 4). Restitution provides either direct compensation to the victim by the offender, usually with money although sometimes with services (victim restitution), and unpaid compensation given not to the victim but to the larger community (community service). Restitution, as an alternative, is similar to restoration in that both concepts seek to place the victim and/or the community back into the position they were in (whether financial or emotional) before the crime was committed.

Victim restitution programs were adopted in the United States in 1972 with the Minnesota restitution program. It "gave prisoners convicted of property offenses the opportunity to shorten their jail stay, or avoid it altogether, if they went to work and

turned over part of their pay as restitution to their victims" (Department of Health and Human Services 2005, 4).

Conclusion

According to policy makers, the concept of alternatives to criminal justice is different from the traditional criminal justice sanctions in four significant ways: (1) It is restorative as opposed to retributive, (2) it uses problem-solving rather than adversarial strategies, (3) the community jurisdiction takes on a more important role than the legal jurisdiction, and (4) the ultimate goal is not to punish the offender but to improve the community through collaborative problem solving. Critics and offenders argue, on the other hand, that the alternatives and community corrections strategies are becoming increasingly punitive despite the emphasis on rehabilitation.

The bottom line is that the offenders are the ones who must evaluate the severity and impact of alternative sanctions. If offenders perceive the alternatives as being too severe, they will choose prison, and the entire concept will serve no purpose. Even offenders receiving identical punishments will react differently to perceived degrees of intrusiveness; some may perceive the punishment as more severe than others, depending on age, race, sex, and prior punishment history (Spelman 1995). According to this research, African American offenders, men, older offenders, unmarried offenders, offenders without children, drug offenders, and repeat offenders rated prison as less punitive than alternatives.

Hence, to ignore these research findings and to disregard the viewpoints of those directly involved—offenders, victims, and community members—is to make policies on the basis of preconceived ideas, biases, and stereotypes.

See also **Domestic Violence Interventions; Social Justice**

Further Reading

Allen, Harry E., ed., *Repairing Communities through Restorative Justice.* Lanham, MD: American Correctional Association, 2002.

Anderson, David, *Sensible Justice: Alternative to Prison.* New York: New Press, 1998.

Begin, P., *Boot Camps: Issues for Consideration.* Ottawa, ON: Research Branch, Library of Parliament, 1996. http://dsp-psd.communication.gc.ca/Pilot/LoPBdP/BP/bp426-e.htm

Bonczar, T., and L. Glaze, "Probation and Parole in the United States 1998." *BJS Bulletin.* Washington DC: U.S. Department of Justice, Office of Justice Programs, 1999.

Caputo, Gail A., *Intermediate Sanctions in Corrections.* Denton: University of North Texas Press, 2004.

Clear, T. R., *Harm in American Penology.* New York: State University of New York Press, 1994.

Clear, T., G. Cole, and M. Reisig, *American Corrections,* 7th ed. Belmont, CA: Wadsworth, 2006.

Clear, Todd R., and David R. Karp, *The Community Justice Ideal: Promoting Safety and Achieving Justice.* Boulder, CO: Westview, 1999.

Department of Health and Human Services, *Combining Substance Abuse Treatment with Intermediate Sanctions for Adults in the Criminal Justice System.* Washington, DC: U.S. Government Printing Office, 2005.

DiMascio, W. M., *Seeking Justice: Crime and Punishment in America.* New York: Edna McConnell Clark Foundation, n.d.

Geerken, Michael, and Hennessey D. Hayes, "Probation and Parole: Public Risks and the Future of Incarceration Alternatives." *Criminology* 31, no. 4 (November 1993): 549–564.

Gill, D. R., *Alternatives to the Present Uses of the Jails.* Chapel Hill: Institute of Government, University of North Carolina, 1967.

Gomme, I. M., "From Big House to Big Brother: Confinement in the Future." In *The Canadian Criminal Justice System,* ed. N. Larsen. Toronto: Canadian Scholars' Press, 1995.

Inciardi, James, Steven Martin, and Clifford Butzin, "Five-Year Outcomes of Therapeutic Community Treatment of Drug-Involved Offenders after Release from Prison." *Crime and Delinquency* 50, no. 1 (2004): 94, 102–104.

Jacobson, Michael, *Downsizing Prisons: How to Reduce Crime and End Mass Incarceration.* New York: New York University Press, 2005.

MacKenzie, D. L., D. B. Wilson, and S. Kider, "Effects of Correctional Boot Camps on Offending." *Annals of the American Academy of Political and Social Science* 578 (2001): 126–143.

May, D. C., P. B. Wood, J. L. Mooney, and K. I. Minor, "Predicting Offender-Generated Exchange Rates: Implications for a Theory of Sentence Severity." *Crime and Delinquency* 51 (2005): 373–399.

Morris, N., and M. Tonry, *Between Prison and Probation Intermediate Punishment in a Rational Sentencing System.* New York: Oxford University Press, 1990.

Nelson, Marta, Perry Deess, and Charlotte Allen, *The First Month Out: Post-Incarceration Experiences in New York City.* New York: Vera Institute of Justice, 1999.

Parent, Dale, and Liz Barnett, *Transition from Prison to Community Initiative.* Washington, DC: National Institute of Corrections, 2002. http://www.nicic.org/pubs/2002/017520.pdf

Petersen R. D., and D. J. Palumbo, "The Social Construction of Intermediate Punishments." *Prison Journal* 77 (1997): 77–92.

Petersilia, Joan, "When Probation Becomes More Dreaded than Prison." *Federal Probation* 54 (1990): 23–27.

Petersilia, Joan, and Susan Turner, *Intensive Supervision Probation for High Risk Offenders Findings from Three California Experiments,* R-3936-NIJ/JA. Santa Monica, CA: Rand, 1990.

Petersilia, Joan, Susan Turner, James Kahan, and Joyce Peterson, *Granting Felons Probation: Public Risks and Alternatives.* Santa Monica, CA: Rand, 1985.

Rush, George E., *The Dictionary of Criminal Justice,* 6th ed. New York: McGraw-Hill, 2004.

Spaulding, Karla R., "Hit Them Where It Hurts: RICO Criminal Forfeitures and White-Collar Crime." *Journal of Criminal Law and Criminology* 80 (1989): 197–198.

Spelman, W., "The Severity of Intermediate Sanctions." *Journal of Research in Crime and Delinquency* 32 (1995): 107–135.

State of Michigan, *Electronic Monitoring of Offenders in the Community.* Department of Corrections, 2006. http://www.michigan.gov/corrections/0,1607,7–119–1435–5032—,00.html

"The 2002–2003 Electronic Monitoring Survey." *Journal of Electronic Monitoring* 15, no. 1 (Winter–Spring 2002): 5.

Tucker, Susan, and Eric Cadora, *Ideas for an Open Society: Justice Reinvestment.* New York: Open Society Institute, 2003.

Vass, Anthony A., *Alternatives to Prison: Punishment Custody and the Community.* Newbury Park, CA: Sage, 1990.

Wood, P. B., and H. G. Grasmick, "Toward the Development of Punishment Equivalencies Male and Female Inmates Rate the Severity of Alternative Sanctions Compared to Prison." *Justice Quarterly* 16 (1999): 19–50.

B

BORDER FENCE

Judith Ann Warner

To prevent unauthorized entrants from crossing the U.S.-Mexico border, Congress passed the Secure Fence Act of 2006 to construct either partial or complete fencing. Since 9/11 this project has been referred to as a "border fence." Does the United States have the sovereign right to block off a border with a neighboring country, or does it insult Mexico and violate the rights of people to freely move about the globe? Both Americans and Mexicans residing on the border view it as offensive, and no similar action has been proposed for Canada. Economic migrants from Mexico and from Central and South America have been forced to cross in ever more remote and hazardous regions, which has raised the death toll. The solution for preventing these deaths could be legalizing increased immigration rather than fencing the border. Although fencing could prevent some criminal activity along the border, such as drug trafficking, it might also promote more varied attempts at human smuggling by tunneling, thus overcoming the fence, or coming into the country by sea or air.

Concern has developed about Mexican drug-related violence involving shootouts between traffickers, law enforcement, and the military. The public supports a border fence primarily as a means of stopping unauthorized immigration, and the government advocates it to prevent the entry of terrorists. Increasingly, the prospect that spillover violence could spread from Mexico into the United States may become another motive for blocking the border, by a fence or otherwise.

Background

The U.S.-Mexico border is 1,951 miles long and crosses urban areas, desert, and mountainous regions. Historically, the highest rates of unauthorized entrance have been through the San Diego (California) and El Paso (Texas) urban areas, which suffered increased crime due to the unlawful measures taken to stop the migrants and attempts by bandits to assault and rob migrants during their passage. These are the sites at which the first border fences were built.

Fencing began with the installation of 14 miles of steel wall as a part of Operation Gatekeeper in the Tijuana–San Diego undocumented immigration corridor (Nevins 2002). It was made with steel plates that served as makeshift aircraft runways during the first Iraq War. They are covered with rust in parts and unsightly. In the San Diego region, the 40 miles of primary 10-foot-high fence with horizontal steel corrugation is easy to climb. After the first wall, there is a 10-foot secondary wall that is 15 feet high and more difficult to climb; it is a steel mesh wall sunk in concrete. This appears to be effective, but these walls have been tunneled under.

At Otay Mesa, San Diego, with the use of ground-penetrating radar, a half-mile, 75-foot-deep tunnel with electricity and ventilation was discovered. It led to a Tijuana industrial park and contained bales of marijuana. It is plausible that this tunnel was also used to smuggle people across the border. U.S. Border Patrol (USBP) officials indicate that the San Diego wall was never meant to stop unauthorized entrance but just to slow people down. A fence that caused injury would render the United States subject to liability lawsuits. Tunnels are a drug trafficking escalation in the effort to maintain smuggling routes.

In Arizona, between the U.S. city of Nogales and Ambos Nogales in Mexico, border walls were built in conjunction with Operation Safeguard. Many additional fences have been constructed in Arizona, but they are not as high or secure in remote rural areas, where the USBP considers it easier to apprehend people. In rocky and mountainous areas, there is a simple rail barrier designed to impede cars or trucks but not foot travelers.

Although Operation Gatekeeper and Operation Safeguard were intended to be temporary, they became permanent. The result was displacement of unauthorized entrants and human smugglers to more remote and risky crossing areas (Dunn 2009; Nunez-Nieto and Kim 2008) and an almost complete drop in apprehensions in the urban areas that were fenced. Nevertheless, fences did not stop unauthorized immigration over the long run. Instead, unauthorized crossers choose different and more difficult rural desert areas, which are extremely hazardous.

The Senate confirmed the U.S. House of Representatives Secure Border Fence Bill of 2006 to authorize and partially fund construction of 700 miles of additional double-walled fencing along the U.S.-Mexico border. The sites include two spots in California,

most of the Arizona border, and heavily populated areas of Texas and New Mexico. Fourteen known drug-smuggling corridors are included. Michael Chertoff, the first Department of Homeland Security secretary, did not favor a physical fence and wanted to deploy a virtual electronic fence instead. One result of this decision point is that the fence may never be fully extended. The fence does not seal off the entire border and leaves open the question of whether another displacement effect will affect unauthorized immigration, making it more dangerous.

Border fencing has involved up to two layers of secured fencing and physical barriers, parallel roads, and surveillance technology (Nunez-Nieto and Kim 2008). By 2010, U.S. Customs and Border Protection (USCBP, part of the Department of Homeland Security) had extended coverage to 645 miles of fence. The degree of security offered by the fence varies. Often rural fencing is no more than a railing to deter vehicles. Other sections of the border fence located near cities and communities comprise a steel plate wall or two fences that are 15 feet high and run parallel to each other with a track for motor vehicles in between. Individuals or groups crossing the border without authorization trigger motion sensors and alert the U.S. Border Patrol, which polices the fence and crossing locations. On one side of each of the two parallel fences is eight feet of coiled barbed wire, and before the barbed wire are ditches to prevent SUVs and trucks used by human and drug smugglers from crossing. In more remote areas, rail fences have been installed to prevent vehicles from crossing.

Border communities and landowners affected by the border fence project have protested it. The Secure Fence Act of 2006 requires consultation with federal agencies, state and local officials, and local property owners. Nevertheless, former Secretary Chertoff was authorized to waive historic preservation and environmental laws, including the Endangered Species Act, the Clean Water Act, and the Safe Drinking Water Act. On four occasions, DHS has used the waivers. Lawsuits over proposed border walls in south Texas occurred, but in 2008 the U.S. Supreme Court turned down a case against border fencing. DHS paid $50 million to compensate for ecological damage and issues with Native American burial sites. It is possible to develop fencing that will curb floods and restore habitats for endangered species. About $40 million has been spent on restoration. The affected species include ocelots, jaguars, wild pigs (javelinas), and deer.

Early in his term, President Barack Obama expressed a preference for border patrolling and adding surveillance technology in lieu of a fence. The evaluations of the U.S. Government Accountability Office have consistently documented problems with a "virtual fence" known as the Secure Border Initiative network, or SBInet. In spring 2010, current DHS Secretary Janet Napolitano responded by cutting $50 million from a scaled back budget of $574 million to pay for a system of cameras, radar, and sensors that was expected to be operational by 2011 (Archibold 2010). Cost overruns on the Boeing contract, equipment malfunctions such as mistaking blowing trees for migrants, lack of

consultation with the USBP, and ineffective assessment of results are considered major issues. By 2010, $1.2 billion had been spent; with only two test sites in Arizona, there was little evidence of effectiveness. In response, Janet Napolitano has frozen funding for SBInet.

The violence of Mexican drug cartels and the possibility that it could spill over into U.S. border communities, a phenomenon labeled "spillover violence," has created a motive for continuing to fence. Originally, Secretary Napolitano was opposed to border fencing; but she now advocates walls and fences as a means of operational control. Napolitano went ahead with the final 60 miles of fencing, estimated to cost $4 million per mile (Reese 2009). In 2010, fencing covered 646 miles of the 1,951-mile U.S.-Mexico border.

Border fencing has been costly to build. Since 2005, $2.4 billion has been spent (Billeaud 2010). Former congressman and 2010 Arizona Senate primary candidate J. D. Hayworth (2009, 3) points out that the original bill calls for double-layer fencing, but only 200 miles are of this more expensive type. Smugglers have overcome single-layer fencing and vehicle barriers with hacksaws, blowtorches, and portable ramps (Billeaud 2010). Migrants may simply use ladders.

Supporters of Border Fencing

Proponents of an extended border fence argue that it is needed for three reasons: (1) to reduce unauthorized immigration, (2) to block drug smugglers and others, and (3) to prevent terrorists from entering through the so-called back door. A border fence is seen as a tool that, with accompanying technology, will allow the USBP to improve enforcement. A 2010 Rasmussen phone survey indicated that 59 percent of a random sample of 1,500 Americans supported a border fence to control immigration (Rasmussen Reports 2010). Only a minority of voters were in opposition: 26 percent. After the March 2010 shooting deaths of American Consulate employees in Ciudad Juarez, Mexico, 49 percent believed that preventing drug trafficking was more important than stopping unauthorized entry.

The data from Operation Gatekeeper in the almost completely fenced San Diego sector, where border fencing originated, has been used to argue that it is effective because apprehension of unauthorized border crossers is greatly reduced (Haddal et al. 2009). The USBP views fencing as a "force multiplier" because it allows them to concentrate on targeted enforcement, USBP considers the displacement of migrant crossing attempts to remote rural areas, as opposed to congested urban regions, as presenting a tactical advantage.

Public figures such as Patrick Buchanan, former Congressman Duncan Hunter, and FOX television journalist Glenn Beck have advocated building a fence along the entire 2,000-mile U.S.-Mexico border. Buchanan (2006), for instance, believes that it would show the exact border location, separate the two nations, and permanently enhance

security. Although the limited border fences already in place have been likened to the Berlin Wall, he does not agree. After World War II, the Berlin Wall was constructed between the zone occupied by the North American Treaty Alliance and that occupied by the Soviet Union in Berlin, Germany, to prevent Eastern Europeans and Soviet citizens from crossing into a non-Communist zone and permanently immigrating. Supporters of a U.S.-Mexico border wall feel that the Berlin Wall locked a population in and made them captive. In contrast, the proposed wall would keep unauthorized entrants out. Is the glass half empty or half full?

Complete fencing of the border would leave 200 openings or ports of entry for vehicles, trucks, and railroads, allowing trade, travel, and border tourism. The mere sight of the border fence is considered a major deterrent to individuals and small groups trying to cross. It has been suggested that a $2 crossing fee would help finance construction of the fence, paying back the cost over time.

One positive impact of the Tijuana–San Diego fence was that land values rose on the U.S. side of the border within 14 miles of the fence. Supporters of fence construction indicate that it would make national parks like the Organ Pipe Monument, Indian reservations such as that of the Tohono-O'odham in southern Arizona, and ranches safer places.

Patrick Buchanan (2006) suggests that the fence might be perceived positively by Mexican border residents because of the increased risk of crime in border-crossing zones such as the Tijuana–San Diego corridor. Prior to the construction of a 14-mile fence in this area, there were border bandits and gangs that committed rape, robbery, and even homicide. This gang activity was separate from drug smuggling, an additional concern. Border homicides occurred at a rate of 10 per year and decreased to zero after the fence was installed. Drug busts of SUVs and trucks dropped from 300 a month to zero along the fence.

The deterrence of crossing reduces opportunity to further exploit unauthorized border crossers. Mexico experiences a high level of corruption because of the low salaries of government employees (Velasco 2005). The Mexican police and military stationed on the U.S.-Mexico border and at ports of entry have been accused of rape, robbery, and physical assault on unauthorized individuals crossing through Mexico from Central and South America. Both the Mexican police and military seek them out throughout Mexico, particularly at Mexico's southern border, to take their money and/or deport them. Women have been sexually assaulted, and unauthorized migrants are alleged to have been beaten to death. Recent corruption concerns involve bribery and intimidation of Mexican and even U.S. law enforcement and government officials by drug trafficking organizations (Cook 2007).

An unrecognized human rights issue is that fencing in remote desert or mountainous border regions would prevent the deaths—due to dehydration, heat exhaustion, cold exposure, starvation, and/or injury—of hundreds of unauthorized crossers. It would also

stop the accumulation of areas of trash left by unauthorized crossers in fragile desert and mountain ecological zones. Ranchers and other property owners would no longer be subject to trespassing on their lands. The more the border is fenced, the more unauthorized entrants are funneled into specific areas, making land enforcement more efficient. However, this approach will work only if the land border is almost completely fenced.

The U.S. public has been chiefly concerned about unauthorized immigration and terrorism. The U.S.-Mexico border is a major drug and human smuggling platform, and transnational organized criminal groups employ high technology to counter each step in the escalation of border control. There is concern that the profit motive would cause such groups to accept payment from terrorists attempting to cross and/or to assist them in transporting weapons of mass destruction, such as dirty bombs or hazardous, active biological organisms such as anthrax. Repeatedly, the issues of the war on terror have been linked to U.S.-Mexico border security, although the 9/11 incident did not involve U.S.-Mexico border crossers.

The chief motivation, however, may not originate from the war on terror. Border security has been a part of the war on drugs since the tight control of the Florida coastal drug smuggling corridor resulted in displacement of drug trafficking to the U.S.-Mexico border. Ultimately, the government may view fence placement as a national security issue primarily connected to drugs, although it is represented as an effort to control immigration and terrorism. There are areas along the U.S.-Mexico border in which even the USBP is threatened by heavily armed drug smugglers.

Opponents of Border Fencing

Felipe Calderón, the president of Mexico (2007–present), ministers of several Latin American countries, and Mexican intellectuals consider the construction of a border wall to be unnecessary and even counterproductive. The Mexican press has condemned the wall project as a xenophobic and racist act. Many Mexican papers have run political cartoons showing Uncle Sam putting up a fence covered with insults to Mexicans. The construction of a border fence is viewed as a major slap in the face by the nation of Mexico. It implies that the United States is superior to Mexico and that social problems originate on the Mexican side, not the American side. The United States is protected from Mexico, not vice versa.

Fence opponents in Mexico, Central America, and Latin America argue that an approach that respects labor rights and human dignity is needed. Mexicans regard the fence as a negative response to individuals who work hard and contribute to the North American economy; they are concerned that it will affect ties between Mexicans and family members living in the United States. Mexicans liken fence extension to the Berlin Wall and view it as a hostile act.

Tony Payan (2006) contends that the border-wall mindset has weakened the ties between the United States and Mexico. There is a sense of separation that undermines

cross-border social ties and makes it difficult to negotiate binational solutions to problems like unauthorized immigration. Today, border residents are less likely to visit one another, and twin cities on the U.S. and Mexico sides are more socially if not geographically distant. Texas governor Rick Perry (2000–present) opposes the fence because it undermines trade; he suggests that technology should be used to promote safe and legal migration and cross-border contact.

Liberal opponents view a fence as a way of keeping Mexican citizens out and believe that preventing freedom of human movement is a human rights issue. The fencing of San Diego, California; El Paso, Texas; and Nogales, Arizona, was undertaken as an effort to deter individuals from crossing. Wayne Cornelius (2006) found that, from 1994 to 2004, a total of 2,978 border migrants died while attempting to enter the United States from Mexico. Cornelius (2006, 784) points out that "To put this death toll in perspective, the fortified U.S. border with Mexico has been more than ten times deadlier to migrants from Mexico during the last nine years than the Berlin Wall was to East Germans throughout its twenty-eight year existence."

Controversy has ensued because border crossers have been diverted to the Sonora Desert and Baboquivari Mountains in Arizona. The fencing of limited areas of the border channeled migrants to different areas that pose a threat to life for those who cross. Primary causes of death are exposure/heat, drowning, and motor vehicle accidents (Guerrette 2007). When the movement of people across the border is squeezed, they will try other areas or methods. In the southwestern desert, migrants are not able to carry much water; they become exposed to intense heat and cold and sometimes get lost. Drowning deaths occur along Texas's Rio Grande River and the Colorado River in California when irrigation water is released and sudden flooding occurs. Tension between the United States and Mexico has increased because of these deaths, which could have been prevented by more open borders.

Academicians have conducted research showing that, although fencing funnels migrants from attempted entry in certain zones, it does not stop unauthorized immigration (Garcia-Goldsmith et al. 2007; Massey 2009). A major unintended consequence of border fencing and other types of escalation of control has been that human smuggling networks have become more organized and profitable (Massey 2009). Unauthorized entrants pay large sums in advance to be smuggled in, or they may pay off huge debts afterwards. Unwittingly, escalation in law enforcement on the border has increased the profitability of human smuggling and created a new transnational organizational structure that people must rely on. In the past, individuals tried to cross on their own or employed small-scale smugglers. Each time border control is escalated, criminal organizations realize greater opportunity. If a debt is owed after crossing, migrants may be coerced or enslaved to pay it off. Ultimately, U.S. border security must to consider the reasons that migrants are so desperate and to deal with the demand for drug consumption in the United States more effectively.

Environmentalists are also opposed to border fencing, which disrupts the ecology of desert regions and riverine systems. The San Diego border fence constructed as a part of Operation Gatekeeper is in a 3.5-mile area of marsh. In 2005, a federal judge ruled against a lawsuit brought by the Sierra Club and other environmental groups to protect the sensitive ecological balance of the Tijuana River marshes. It is one of the few intact estuaries and coastal lagoon systems in southern California. A more general objection to fencing at most rural points of the border is that it hampers the migration of wild animals.

In south Texas, many lawsuits were brought against the border fence. The fence disrupts the use of private property, placing a barrier between animals and water or ranchers and their own land. It has had social consequences such as dividing the campus of the University of Texas at Brownsville into U.S. and Mexican areas. A coalition of Texas mayors and other public officials sought to stop the fence, but their effort to bring the issue before the U.S. Supreme Court was unsuccessful. To facilitate fencing, the secretary of the Department of Homeland Security issued 30 waivers of laws protecting endangered species, migratory birds, deserts or forests, antiquities, Native American graves, and rancher's property rights.

Opponents of extended border fencing argue that the tactic is insufficient and that better intelligence and innovative solutions are needed. They point out that the cost estimate is $70 billion. Some conservative opponents of fencing, including the Border Fence Project, are against federal attempts to fence the border and found the present legislation, the Secure Border Fence Act of 2006, very flawed. Their reasoning is that only 700 miles will be fenced and a great deal of coverage will be electronic; they also worry that personnel to respond will be underfunded. They argue that a delay in fence building will result in surges of crossers in unfenced areas. Finally, they point out that, in their opinion, the federal government does not do a good job of repairing, maintaining, or guarding current fencing. Existing areas of 15-foot-high steel-and-concrete fencing have been successfully overcome for temporary periods with hacksaws and acetylene or plasma torches, huge ladders, and even bungee jumping cords.

Methods used by smugglers to circumvent the border fence include tunnels and cave-like passages used to smuggle people, drugs, and contraband. A total of 101 tunnels have been discovered between 1990 and 2008 (Haddal et al. 2009). Circumventing the fence is a response to increased CBP enforcement. In 2006, Congress passed the Border Tunnel Prevention Act to increase criminal penalties. A tunnel builder can get up to 20 years. Improvements in intelligence gathering and tunnel detection are occurring but attempts continue to be made.

Fencing the border to stop unauthorized entry was immediately linked to 9/11 and preventing terrorist incursion despite the fact that none of the 9/11 terrorists entered through the U.S.-Mexico border. Instead, they came by air and overstayed visas that were, in some cases, fraudulent. Opponents think it is an error to connect 9/11 with

southern border security. The real issues at the U.S.-Mexico border are much more varied. Drug smuggling of cocaine, heroin, marijuana, and methamphetamine is a multibillion-dollar business connected to illegal money laundering.

The construction of a border fence completely overlooks the relationship of the United States, a high-income country, to Mexico and other Central and South American middle- or low-income countries. Issues in economic development are associated with unauthorized immigration for economic motives. Border fencing is a unilateral, not a bilateral or multilateral, effort that addresses the economic development of the sending countries (Payan 2006). Recently, the need to address socioeconomic issues in Mexico was recognized in the context of combating drug trafficking and related violence by increasing economic opportunity (Thompson and Lacey 2010).

Peter Skerry (2006) maintains that the primary reason for building a border fence was never about undocumented immigration. He contends that politicians want to stop drug traffickers. It is easy for public figures to merge and blur the issues of unauthorized immigration, counterterrorism, and—with renewed emphasis—drug trafficking. The secretary of Homeland Security has the authority to waive all laws that prevent national security measures, which makes the process of opposing the wall and developing binational and global solutions to major issues problematic. Globalization has made us one world, and the use of national sovereignty to build a wall can easily be perceived as national arrogance and disregard for the concerns of other nations.

Conclusion

Prior border fences did not stop unauthorized immigration. The Secure Border Fence Act of 2006 does not seal off the entire border. As a result, it has the potential to channel unauthorized entrants to rural regions of Arizona, New Mexico, and Texas or to direct human smugglers to turn toward air and coastal routes. Many observers think that only a guest-worker program in combination with a fence would deal with the issue of unauthorized immigration from Mexico. This solution, however, does not take into account people from Central and South America who travel north to make unauthorized crossings or people who are legally admitted and overstay their visas. There are unauthorized immigrants from many areas of the world in the United States who did not cross a land border to enter. Meanwhile, the government's central concerns for building a wall include transnational drug smuggling and counterterrorism. Controversy will continue as the government and the public consider whether it is possible for a nation to seal itself off in a rapidly globalizing world.

See also **Drug Trafficking and Narco-Terrorism; Human Smuggling and Trafficking; Immigration Reform (vol. 3)**

Further Reading

Archibold, Randal C., "Budget Cut for Fence on U.S.-Mexico Border." *New York Times* (March 16, 2010). http://www.nytimes.com/2010/03/17/us/17fence.html

Billeaud, Jacques, "Fence Alone Cannot Plug Border." MSNBC.com. May 28, 2010. http://www.msnbc.msn.com/id/37387658/ns/us_news-immigration_a_nation_divided

Buchanan, Patrick, *State of Emergency: The Third World Invasion and Conquest of America.* New York: Thomas Dunn Books/St. Martin's Press, 2006.

Cook, Coleen W., *Congressional Research Service Report: Mexico's Drug Cartels.* 2007. http://ftp.fas.org/sgp/crs/row/RL34215.pdf

Cornelius, Wayne A., "Controlling 'Unwanted Immigration': Lessons From the United States. 1993–2004." *Journal of Ethnic and Migration Studies* 31, no. 4 (2006): 775–794.

Downes, Lawrence, "The Not-So-Great-Wall of Mexico." *New York Times* (April 20, 2008). http://www.nytimes.com/2008/04/20/opinion/20sun4.html

Dunn, Timothy, *Blockading the Border and Human Rights: The El Paso Operation That Remade Immigration Enforcement.* Austin: University of Texas Press, 2009.

Garcia-Goldsmith, Raquel M., Melissa McCormick, Daniel Martinez, and Inez Magdelena Duarte, *The "Funnel Effect"and Recovered Bodies of Unauthorized Immigrants Processed by the Pima County Office of the Medical Examiner, 1990–2005.* Report Submitted to the Pima County Board of Supervisors. Tucson, AZ: Binational Immigration Institute. Mexican American Research and Studies Center, University of Arizona, 2006.

Guerette, Rob T., "Immigration Policy, Border Security, and Migrant Deaths: An Impact Evaluation of Life-Saving Efforts under the Border Safety Initiative." *Criminology and Public Policy* 6, no. 2 (2007): 245–266.

Haddal, Chad C., Yule Kim, and Michael John Garcia, "Congressional Research Service: Border Security: Barriers Along the U.S. International Border." March 16, 2009. http://www.fas.org/sgp/crs/homesec/RL33659.pdf

Hayworth, J. D., Testimony before the United States Senate Committee on the Judiciary, Subcommittee on Immigration, Border Security and Citizenship, Hearing on Securing the Borders and America's Ports of Entry, What Remains to be Done. May 20, 2009. http://judiciary.senate.gov/pdf/5–20–09HayworthTestimony.pdf

Liptak, Adam, "Power to Build U.S. Border Fence Is Above U.S. Law." *New York Times* (April 8, 2008). http://www.nytimes.com/2008/04/08/us/08bar.html

Massey, Douglas, Testimony before the United States Senate Committee on the Judiciary, Subcommittee on Immigration, Border Security and Citizenship, Hearing on Securing the Borders and America's Ports of Entry, What Remains to be Done. May 20, 2009. http://judiciary.senate.gov/hearings/testimony.cfm?id = 3859&wit_id = 7939

Nevins, Joseph, *Operation Gatekeeper: The Rise of the "Illegal Alien" and the Making of the U.S.-Mexico Boundary.* New York: Routledge, 2002.

Nunez-Nieto, Blas, and Yule Kim, *CRS Report for Congress: Border Security: Barriers Along the U.S.-Mexico Border.* Washington, DC: Congressional Research Service, 2008.

Payan, Tony, *The Three U.S.-Mexico Border Wars: Drugs, Immigration and Homeland Security.* Westport, CT: Praeger Security International/Greenwood Publishing Group, 2006.

Rasmussen Reports, "59% Say U.S. Should Continue to Build Fence on the U.S.-Mexico Border." March 18, 2010. http://www.rasmussenreports.com/public_content/politics/current_events/mexico/59_say_u_s_should_continue_to_build_fence_on_u_s_mexico_border

Reese, April, "U.S.-Mexico Fence Building Continues Despite Obama's Promise to Review Effects." *New York Times* (April 16, 2009).

Romero, Fernando, *Hyperborder: The Contemporary U.S.-Mexico Border and Its Future.* New York: Princeton Architectural Press, 2008.

Skerry, Peter, "How Not to Build a Fence." *Foreign Policy* (September/October 2006): 64–67.

Thompson, Ginger, and Marc Lacey, "U.S. and Mexico Revise Joint Anti-Drug Strategy." *New York Times* (March 24, 2010). http://www.nytimes.com/2010/03/24/world/americas/24mexico.html

Velasco, Jose Luis, *Insurgency, Authoritarianism and Drug Trafficking in Mexico's "Democratization."* New York: Routledge, 2005.

C

CLASS JUSTICE

Gregg Barak and Paul Leighton

Karl Marx maintained that the root of most crime and injustice could be found in class conflict. Within and without the academies of crime and justice, this contention is highly controversial. In fact, it is so controversial that here in the United States the whole idea of class itself is often in a state of political and social denial. Unlike gendered justice and sexism or racial (ethnic) justice and racism, class justice and classism has not been recognized in either the substantive or procedural sides of the law. Opponents of class justice argue that we are not only a so-called classless society but also a democracy in which all individuals are subject to due process, equal protection, and the rule of law. Although proponents of class justice do not take issue with the fact that no person is above the law, they do contend that many actions are beyond incrimination and adjudication, whereas other actions are selectively enforced and differentially punished according to class interests.

Background

Throughout most of the 19th century and well into the 20th, a blatant kind of class justice prevailed in the selective enforcement and differential application of the criminal and civil law to the haves and the have-nots. The laws themselves were heavily influenced by a reverence for private property and laissez-faire social relations. In terms of commercial transactions, the philosophy of the day was caveat emptor, "let the buyer beware." In the area of business, farmers and new merchants alike were allowed the freedom to expand their particular domains and to compete and acquire both property and capital with little

legal interference. By contrast, labor was highly regulated. Unions were considered an illegal interference with freedom of contract and an unlawful conspiracy infringing upon the employer's property rights.

The administration of criminal (and civil) justice was chaotic, often corrupt, and subject to the buying of law enforcement and juries. An independent and decentralized criminal justice system designed for a more homogenized, pioneer, and primarily agricultural society was ill adapted for the needs of an increasingly complex, urban, and industrialized society. A social and cultural environment that was experiencing increasing numbers of immigrants from southern and eastern Europe, a changing means of rapid communication and transportation, and an expanding presence of wage-earning working classes called for a coordinated system of criminal justice.

By the end of the 19th century, the buying of justice that had prevailed earlier (available to those who could afford representation in the legislatures, in the courts, and in the streets) was threatening the very legitimacy of criminal justice in the United States. The initial laissez-faire emphasis on the right to acquire private property had blossomed into a full-fledged national preoccupation with wealth and power. Political corruption became widespread, and political machines dominated urban areas: "The machines controlled city governments, including the police and the courts. Payrolls were padded and payoffs were collected from contractors" (Edelstein and Wicks 1977, 7). Graft and other forms of bribery contributed not only to the buying of justice by those who could afford it but also to a changing national morality. Rackets, "pull," and protection were common antidotes to stubborn legal nuisances. Prevailing values of wealth and success predominated as guiding principles of right and wrong. "The ability to 'make good' and 'get away with it' offsets the questionable means employed in the business as well as professional worlds. Disrespect for the law and order is the accompanying product of this scheme of success" (Cantor 1932, 145).

Those who were marginalized—especially the poor, unemployed, women, and people of color—were rarely if ever in a position to buy justice. As the marginalized groups of immigrants and others grew in urban centers across the United States and as the miscarriages of justice flourished, the need to reform the institutions of criminal justice grew because the country was beginning to experience bitter class wars. The working classes aggressively resisted exploitation through on-the-job actions and wide social movements. To combat challenges to the emerging monopoly or corporate order of industrial capitalism, the wealthy ruling classes initially employed illegal violence, such as the hiring of thugs and private armies. Later, they retained the services of private security companies, such as Pinkerton's, to infiltrate and break up worker organizations.

Key Events

Double Standards of Justice

In 1964, William Rummel received three years in prison after being convicted of a felony for fraudulently using a credit card to obtain $80 worth of goods.

Five years later, he passed a forged check in the amount of $28.36 and received four years. In 1973, Rummel was convicted of a third felony: obtaining $102.75 by false pretenses for accepting payment to fix an air conditioner that he never returned to repair. Rummel received a mandatory life sentence under Texas's recidivist statue. He challenged this sentence on the grounds that it violated the Eighth Amendment's prohibition of cruel and unusual punishment by being grossly disproportionate to the crime.

In *Rummel v. Estelle* (1980), the U.S. Supreme Court affirmed Rummel's life sentence for the theft of less than $230 that never involved force or the threat of force. Justice Louis Powell's dissent noted "it is difficult to imagine felonies that pose less danger to the peace and good order of a civilized society than the three crimes committed by the petitioner" (*Rummel v. Estelle 1980, 295*). However, Justice William Rehnquist's majority opinion stated there was an "interest, expressed in all recidivist statues, in dealing in a harsher manner with those who by repeated criminal acts have shown that they are simply incapable of conforming to the norms of society as established by its criminal law" (*Rummel v. Estelle* 1980). After "having twice imprisoned him for felonies, Texas was entitled to place upon Rummel the onus of one who is simply unable to bring his conduct within the norms prescribed by the criminal law" (*Rummel v. Estelle* 1980).

Now consider the case of General Electric (GE), which is not considered a habitual criminal offender. Nevertheless it has been prosecuted for diverse crimes over many decades. In the 1950s, GE and several companies agreed in advance on the sealed bids they submitted for heavy electrical equipment. This price-fixing defeated the purpose of competitive bidding, costing taxpayers and consumers as much as a billion dollars. GE was fined $437,000—a tax-deductible business expense—the equivalent of a person earning $175,000 a year getting a $3 ticket. Two executives spent only 30 days in jail, even though one defendant had commented that price-fixing "had become so common and gone for so many years that we lost sight of the fact that it was illegal" (Hills 1987, 191).

In the 1970s, GE made illegal campaign contributions to Richard Nixon's presidential campaign. Widespread illegal discrimination against minorities and women at GE resulted in a $32 million settlement. Also during this time, three former GE nuclear engineers—including one who had worked for the company for 23 years and managed the nuclear complaint department—resigned to draw attention to serious design defects in the plans for the Mark III nuclear reactor because the standard practice was "sell first, test later" (Hills 1987, 191).

In 1981, GE was convicted of paying a $1.25 million bribe to a Puerto Rican official to obtain a power plant contract. GE has pleaded guilty to felonies involving illegal procurement of highly classified defense documents, and in 1985 it pleaded guilty to 108 counts of felony fraud involving defense contracts related to the Minuteman missile. In spite of a new code of ethics, GE was convicted in three more criminal cases over the next few years, in addition to paying $3.5 million to settle cases involving retaliation against four whistle-blowers who helped reveal the defense fraud. (GE subsequently lobbied Congress to weaken the False Claims Act.) In 1988, the government

returned another 317 indictments against GE for fraud in a $21 million computer contract.

In 1989, GE's stock brokerage firm paid a $275, 000 civil fine for discriminating against low-income consumers, the largest fine ever under the Equal Credit Opportunity Act. A 1990 jury convicted GE of fraud for cheating on a $254 million contract for battlefield computers, and journalist William Greider reported that the $27.2 million fine included money to "settle government complaints that it had padded bids on two hundred other military and space contracts" (Greider 1996, 4).

Because of tax changes that GE had lobbied for and the tax cuts passed under President Ronald Reagan generally, GE paid no taxes between 1981 and 1983, when net profits were $6.5 billion. In fact, in a classic example of corporate welfare, GE received a tax rebate of $283 million during a time of high national deficits even though the company eliminated 50,000 jobs in the United States by closing 73 plants and offices. Further, "Citizen GE," whose advertising slogan has been "Brings good things to life," is one of the prime environmental polluters and is identified as responsible for contributing to the damage of 47 sites in need of environmental cleanup in the United States alone.

Even though felons usually lose political rights, GE's political action committee contributes hundreds of thousands of dollars to Congress each year, and it now owns NBC television, with all of its influence. In spite of having been convicted of defrauding every branch of the military, representatives from GE are frequently invited to testify before Congress. If the corporation's revenues were compared with the gross domestic product of countries, it would be among the top 50 largest economies in the world. With this kind of political, economic, and social power, it is easy to understand why "three strikes and you're out" does not apply to the big hitters like GE.

The pattern outlined in these examples was reinforced in 2003, when the Supreme Court upheld a 50-year sentence for two acts of shoplifting videos from Kmart. Under California's three-strikes law, Leandro Andrade's burglary convictions from the 1980s counted as the first two, and the prosecutor decided to charge the shoplifting incidents as strikes, which carry a mandatory sentence of 25 years each. The Supreme Court, citing *Rummel v. Estelle,* held that the sentences were neither disproportionate nor unreasonable (*Lockyer v. Andrade* 2003).

At the same time, Andrew Fastow, Enron's chief financial officer, negotiated a plea bargain for 10 years in prison. Fastow had been instrumental in fraud, which resulted in the largest bankruptcy in U.S. history at that time. He had worked the deals to launder loans through allegedly independent entities to make them appear as revenue for Enron, and he helped push the accountants to approve the deals and used the massive banking fees Enron paid to silence Wall Street analysts who asked questions about Enron's finances. Fastow was originally charged with 109 felony counts, including conspiracy, wire fraud, securities fraud, falsifying books, as well as obstruction of justice, money laundering, insider trading, and filing false income tax returns. The sentence was

negotiated in an environment in which getting tough on corporate crime was seen as a high priority (Leighton and Reiman 2004).

Class, Crime, and the Law

The rich and powerful use their influence to keep acts from becoming crimes, even though these acts may be more socially injurious than those labeled criminal. Further, they are also able to use mass-mediated communication to shape the public discourse and moral outrage about crime. In short, the corporate elite's relative monopoly over the airways allows them to act as so-called transmission belts for creating consensus over what is and is not a crime. For example, Jeffrey Reiman, in the eighth edition of *The Rich Get Richer and the Poor Get Prison* (2007), notes that multiple deaths that result from unsafe workplaces tend to get reported as accidents and disasters, whereas the term *mass murder* is reserved exclusively for street crime. Although there are differences between the two, especially in the level of intentionality, it is not clear that one should be a regulatory violation and the other a crime.

If the point of the criminal law is to protect people's well-being, then why was no crime committed in the 2005 deaths of 12 miners in West Virginia? "Time and again over the past four years, federal mining inspectors documented the same litany of problems at central West Virginia's Sago Mine: mine roofs that tended to collapse without warning. Faulty or inadequate tunnel supports. A dangerous buildup of flammable coal dust" (Warrick 2006, A4). In the two years before this explosion, the mine was cited 273 times for safety violations, one-third of which were classified as "significant and substantial," and "16 violations logged in the past eight months were listed as 'unwarrantable failures,' a designation reserved for serious safety infractions for which the operator had either already been warned, or which showed 'indifference or extreme lack of care'" (Warrick 2006, A4). This state of affairs seems to fit within the criminal law categories of knowing, reckless, or negligent, but most matters like this stay within the realm of administrative sanctions and the civil law.

Outside of mining, the situation is the same. From 1982 to 2002, the Occupational Safety and Health Administration (OSHA), which has primary responsibility for the nation's workplace safety, identified 1,242 deaths it concluded were related to "willful" safety violations. Only 7 percent of cases were referred for prosecution, however, and "having avoided prosecution once, at least 70 employers willfully violated safety laws again, resulting in scores of additional deaths. Even these repeat violators were rarely prosecuted" (Barstow 2003). One of the many barriers is that causing the death of a worker by willfully violating safety laws is a misdemeanor with a maximum sentence of six months in jail; therefore, such cases are of little interest to prosecutors. This level of punishment was established in 1970 by Congress, which has repeatedly rejected attempts to make it tougher; consequently, harassing a wild burro on federal lands carries twice the maximum sentence of causing a worker's death through willful safety

violations. Compare the lack of change in the punishment for a worker's death with the escalating toughness for all types of street crime, in which Congress's "tough on crime" attitude led to three-strikes laws, expansion of the number of strikable offenses, mandatory minimums, increasingly severe sentencing guidelines, and increased offenses eligible for the death penalty. Since the early 1990s, however, Congress has voted down all laws to increase penalties for workplace deaths, even recent modest proposals to increase the maximum penalty to 10 years (Barstow 2003).

In terms of class justice generally, much of the harmful and illegitimate behavior of the elite members of society has not traditionally been defined as criminal, but nearly all the harmful and deviant behavior perpetrated by the poor and the powerless, the working and middle classes, is defined as violating the criminal law. Thus, basing crime-control theory and practice on a neutral criminal law ignores the fact that the legal order and the administration of justice reflect a structural class bias that concentrates the coercive power of the state on the behaviors of the relatively poor and powerless members of society. These omitted relations of class justice reveal the importance of two systemic operations in the administration of criminal justice: selective enforcement and differential application of the law. Selective enforcement of harms by the law refers to the fact that most harm perpetrated by the affluent is "beyond incrimination" (Kennedy 1970). As for the harms committed by the politically and economically powerful that do come within the purview of criminal law, these are typically downplayed, ignored, or marginalized through differential application of leniency and/or compassion.

Similarly, criminologist Stephen Box suggests that one of the most important advantages of corporate criminals lies "in their ability to prevent their actions from becoming subject to criminal sanctions in the first place" (Braithwaite 1992, 89).

Although certain behaviors may cause widespread harm, criminal law does not forbid abuses of power in the realm of economic domination, governmental control, and denial of human rights. As we saw in the opening narrative of this entry, being a habitual offender is against the law in most areas, where "three strikes and you're out" applies to street criminals. But habitual offender laws do not apply to corporate persons (like GE) that can repeatedly commit serious crimes without being subjected to these statutes or to the legal possibility of a state revoking a corporation's charter to exist.

In some cases, harmful actions will be civil offenses rather than criminal ones, but the difference is significant because civil actions are not punishable by prison and do not carry the same harsh stigma. A plea to civil or administrative charges does not amount to an admission of guilt and thus cannot be used against a business in other related litigation. Other destructive behavior may not be prohibited by civil law or regulations created by administrative agencies. In this respect, the tobacco industry produces a product that kills 400,000 people each year, but its actions are not illegal, not a substantial part of the media campaign of the Office for National Drug Control Policy or Partnership for a Drug Free America, or even subject to federal oversight as a drug.

When corporations are charged, they can use their resources to evade responsibility. Criminologist James Coleman (1985) did an extensive study of the enforcement of the Sherman Antitrust Act in the petroleum industry and identified four major strategies that corporations employ to prevent full application of the law. First is endurance and delay, which includes using expensive legal resources to prolong the litigation and obstruct the discovery of information by raising as many motions and legal technicalities as possible. Second is the use of corporate wealth and political connections to undermine the will of legislators and regulators to enforce the law's provisions. Third is secrecy and deception about ownership and control to prevent detection of violations and make them more difficult to prove. Fourth are threats of economic consequences to communities and the economy if regulations are passed and/or fully enforced.

One of the classic statements on this topic, first referred to by former General and President Dwight D. Eisenhower as the "military–industrial complex," is a book by C. Wright Mills called *The Power Elite* (1956). He contended that an elite composed of the largest corporations, the military, and the federal government dominates life in the United States. Mills argued that these three spheres of power are highly interrelated, with members of each group coming from similar upper-class social backgrounds, attending the same private and Ivy League universities, even belonging to the same social or political organizations. In addition to their mutual "ruling class interests," corporate elites also make large political donations to both the Republicans and Democrats to ensure their access to the law-making process.

Reiman suggests that the result of these relations is that law is like a carnival mirror. It distorts our understanding of the harms that may befall us by magnifying the threat from street crime because it criminalizes more of the conduct of poor people. At the same time, it distorts our perception about the danger from crime in the office suites by downplaying and not protecting people from the harms perpetrated by those above them in the class system. As a consequence, both the criminal law and the administration of justice do "not simply *reflect* the reality of crime; [they have] a hand in *creating* the reality we see" (Reiman 1998, 57). Thus, to say that the criminal law appropriately focuses on the most dangerous acts is a problematic statement because the criminal law shapes our perceptions about what is a dangerous act.

Reiman also argues that the processing of offenders serves to "weed out the wealthy." Selective enforcement means that many harmful acts will not come within the realm of criminal law, and if they do, it is unlikely that they will be prosecuted, "or if prosecuted, not punished, or if punished, only mildly" (Reiman 1998, 57). This observation is consistent with the analysis in Black's highly referenced and acclaimed book *The Behavior of Law* (1976). Black sought to discover a series of rules to describe the amount of law and its behavior in response to social variables such as stratification, impersonality, culture, social organization, and other forms of social control. When it comes to issues of class, the variables of stratification and social organization are the two most relevant.

Black proposed that the law varies directly with hierarchy and privilege, so that the more inequality in a country, the more law. He also applied his proposition to disputes between two parties of unequal status and wealth. Based on a wide variety of cases, Black concluded there is likely to be more law in a downward direction, such as when a rich person is victimized by a poorer one. This means the use of criminal rather than civil law, for example, and a greater likelihood of a report, investigation, arrest, prosecution, and prison sentence. In contrast, when the wealthier harms the poorer, Black predicted there would be less law, meaning civil law, monetary fines rather than jail, and therapeutic sanctions rather than punitive ones. Further, Black argued that there is likely to be more law in the downward direction when an individual victimizes a group high in social organization, such as a corporation or the state. Conversely, less law and a pattern of differential application are likely to be the result of a corporate body or the state victimizing individuals or groups of individuals that have lower levels of social organization, such as poor communities.

Conclusion

Although attention has been paid to examples from occupational safety, the analysis provided here also applies to financial crimes, including several episodes of massive and widespread fraud. For example, Representative Frank Annunzio, who was chairman of the House Subcommittee on Financial Institutions that investigated the prosecution of criminals involved in the savings and loan (S&L) wrongdoings of the late 1980s, made the same points that Reiman and Black do in his opening remarks to one congressional hearing:

> Frankly, I don't think the administration has the interest in pursuing Gucci-clad white-collar criminals. These are hard and complicated cases, and the defendants often were rich, successful, prominent members of their upper-class communities. It is far easier putting away a sneaker-clad high school dropout who tried to rob a bank of a thousand dollars with a stick-up note, than a smooth talking S&L executive who steals a million dollars with a fraudulent note. (Hearings 1990, 23)

These comments highlight the difficulty and reluctance in prosecuting upper-class criminals even though the harm done is much greater than that due to street crime. Some S&L executives personally stole tens of millions of dollars and others were responsible for the collapse of financial institutions that needed government bailouts to the tune of $1 billion. The total cost of the S&L bailout ultimately climbed to about $500 billion, yet few S&L crooks went to prison, and the ones who received prison sentences got an average of two years, compared with an average of nine years for a bank robber (Hearings 1990).

After such expensive and widespread fraud, Congress briefly decided to get tough, but it soon removed all the regulations put in place to safeguard against similar fraud.

According to the authors of *Big Money Crime,* soon after the S&L crisis, Congress went on a wave of "cavalier" financial deregulation, creating the "paradox of increasing financial deregulation coming on the heels of the most catastrophic experiment with deregulation in history" (Calavita, Pontell, and Tillman 1997, 10). These actions set the stage for the 2002 financial crimes involving Enron, WorldCom, Global Crossing, Tyco, and several other billion-dollar corporations. Although a few of the responsible chief executives found themselves doing time behind bars, most of those involved in these frauds and crimes found themselves escaping, courtesy of class justice. At the same time, the victims of these crimes—workers, consumers, investors, retirees, and more—received little or no compensation, despite the fact that many lost their life savings.

Historically then, based on the past—long-term and short-term—and on the present, and given the prevailing political and economic arrangements, and barring a major revolution in the organization of multinational or global capitalism, class justice is looking very secure into the foreseeable future. It received a painful prick from the American populace after the collapse—and government bailout—of various Wall Street investment firms and major banks and insurers in 2008–2009; but very few if any of the custodians of what suddenly had become "toxic assets" ended up being prosecuted. To borrow the rhetoric of the time, Main Street was angry at Wall Street for the latter's misuse of investors' funds (in the form of "collateralized debt obligations" and other financial inventions), but expressions of anger and calls for additional financial regulation was as far as the matter went.

See also **African American Criminal Injustice; Corporate Crime; Social Justice; Environmental Justice (vol. 4)**

Further Reading

Auerbach, Jerold S., *Unequal Justice: Lawyers and Social Change in Modern America.* New York: Oxford University Press, 1977.

Barak, Gregg, Paul Leighton, and Jeanne Flavin, *Class, Race, Gender, and Crime: The Social Realties of Justice in America,* 3d ed. Lanham, MD: Rowman & Littlefield, 2010.

Barstow, David, "When Workers Die: U.S. Rarely Seeks Charges for Deaths in Workplace." *New York Times* (December 22, 2003). http://reclaimdemocracy.org/weekly_2003/when_workers_die.html

Braithwaite, John, "Poverty, Power and White Collar Crime." In *White Collar Crime Reconsidered,* ed. Kip Schlegel and David Weisbord. Boston: Northeastern University Press, 1992.

Calavita, Kitty, Henry Pontell, and Robert Tillman, *Big Money Crime.* Berkeley and Los Angeles: University of California Press, 1997.

Cantor, Nathaniel E., *Crime: Criminals and Criminal Justice.* New York: Henry Holt, 1932.

Coleman, James, "Law and Power: The Sherman Antitrust Act and Its Enforcement in the Petroleum Industry." *Social Problems* 32, no. 3 (1985): 264–274.

Edelstein, Charles D., and Robert J. Wicks, *An Introduction to Criminal Justice.* New York: McGraw-Hill, 1977.

Greider, William, *Who Will Tell the People? The Betrayal of American Democracy.* New York: Simon and Schuster, 1996.

Hartmann, Thom, *Unequal Protection: The Rise of Corporate Dominance and the Theft of Human Rights.* San Francisco: Berrett-Koehler, 2009.

Hearings before the Subcommittee on Financial Institutions Supervision, Regulation, and Insurance of the Committee on Banking, Finance, and Urban Affairs, U.S. House of Representatives, 101st Congress, 2nd Session, "When Are the Savings and Loan Crooks Going to Jail?" Washington, DC: U.S. Government Printing Office, 1990, 23.

Hills, Stuart, ed., *Corporate Violence: Injury and Death for Profit.* Savage, MD: Rowman & Littlefield, 1987.

Kennedy, Mark, "Beyond Incrimination: Some Neglected Facets of the Theory of Punishment." *Catalyst* 5 (Summer 1970): 1–30.

Leighton, Paul, and Jeffrey Reiman, "A Tale of Two Criminals: We're Tougher on Corporate Criminals, but They Still Don't Get What They Deserve." Supplement to Jeffrey Reiman, *The Rich Get Richer and the Poor Get Prison,* 7th ed. Boston: Allyn and Bacon, 2004. http://paulsjusticepage.com/RichGetRicher/fraud2004.htm

Lockyer v. Andrade, 538 U.S. 63 (2003).

Mills, C. Wright, *The Power Elite.* New York: Oxford University Press, 1956.

Reiman, Jeffrey, *The Rich Get Richer and the Poor Get Prison,* 8th ed. Boston: Allyn and Bacon, 2007.

Rummel v. Estelle, 445 U.S. 263 (1980).

Sheldon, Randall G., *Controlling the Dangerous Classes: A History of Criminal Justice in America,* 2d ed. Boston: Allyn and Bacon, 2007.

Simon, David, *Elite Deviance,* 9th ed. Boston: Allyn and Bacon, 2007.

Walker, Samuel, Cassia Spohn, and Miriam DeLone, *The Color of Justice: Race, Ethnicity, and Crime in America.* Boston: Wadsworth, 2006.

Warrick, Joby, "Safety Violations Have Piled Up at Coal Mine." *Washington Post* (January 6, 2006): A4.

CORPORATE CRIME

Richard D. Hartley and Michael Shally-Jensen

The focus on, study of, and prosecution for corporate crime is a relatively new phenomenon—one that has recently gained wide public attention. For criminologists, "corporate crime" refers to acts in violation of the law that are committed by businesses, corporations, or individuals within those entities. Corporate crime is also closely associated with white-collar crime, organized crime, and state–corporate crime. Although most of us do not think of businesses, corporations, or presidents and CEOs of companies when we think of criminals, corporate and white-collar offenses actually cause more deaths, physical injury, and property loss than the Uniform Crime Report's eight serious index offenses together (Kappeler, Blumberg, and Potter 2000).

Since the beginning of the 21st century, we have observed unparalleled levels of corporate malfeasance and financial wrongdoing. The economic crisis of 2008–2009 highlighted the extraordinary risks Wall Street investment banks had been taking with other people's money. Federal and state officials investigating possible illicit activities by these banks (Goldman Sachs, among them) focused on counterinvestments made by the banks' own top executives against faulty investment products (derivatives) they were selling to their clients, as well as on the likelihood that the banks hid risks from the rating agencies that evaluate financial products for consumers. Several years earlier, the bankruptcies of WorldCom and Enron raised public ire about the legitimacy of reported corporate profits. Xerox, for example, doctored its books to show $1.4 billion more in profits than was actually there, and WorldCom itself overstated its profits to the tune of $3.8 billion. The top-level officers in these companies have also been accused and convicted of wrongdoing. Some top executives have enjoyed the rewards of the sales of their companies' stocks prior to filing for bankruptcy and have been charged with fraud in the process. Scott Sullivan of WorldCom made $35 million this way; Kenny Harrison and Kenneth Lay of Enron made $75 million and $220 million, respectively, from the sales of company shares; and Gary Winnik of Global Crossing made $500 million in the two years before his company went bankrupt ("Corporate America's Woes, Continued" 2002). The accounting firms in charge of these companies' books were also implicated in many of the scandals. Three accounting firms—Arthur Andersen LLP, KPMG, and Ernst and Young—were all charged with violations, and Andersen was forced out of business because of it.

Companies and their employees have traditionally been able to safeguard themselves from government inquiries, the media, and shareholders because of the authority and influence they have over the information they release about company transactions. These companies are complex organizations to the extent that they can engage in shady business dealings while at the same time keeping some employees inside the corporation, and many shareholders outside of the corporation, blind to this devious corporate conduct (Simon 2006). Criminal actions of this nature continue because of the benefits the corporations enjoy and the minimal risks of being caught and punished for wrongdoing (Gray, Frieder, and Clark 2005). Others, however, have suffered some punishment; former Tyco CEO Dennis Kozlowski was sentenced to 8 to 25 years for misappropriating $400 million of the company's money. John and Tim Rigas are currently serving 15 and 20 years respectively for fraud and conspiracy related to their company, Adelphia. Ex-Enron CFO Andrew Fastow received a 6-year prison term for his role in the company's wrongdoing. Even Martha Stewart served 5 months in prison for obstructing justice in the investigation of her sale of ImClone stock.

The costs of corporate crime are beyond compare, totaling more than the combined price of all other crime *plus* the cost of operating the criminal justice system (Simon 2006). Actual costs are hard to gauge; however, research undertaken by Congress

estimates the price of corporate crime at roughly $200 billion annually (Coleman 1985). Couple this with the fact that penalties are rarely imposed (or, if they are imposed, are not severe enough to guarantee compliance in the future), and it becomes obvious why corporate malfeasance continues.

Corporate Crime Typologies

It is necessary to distinguish between corporate and white-collar crime. The latter offenses are those "socially injurious and blameworthy acts committed by individuals or groups of individuals who occupy decision-making positions in corporations and businesses, and which are committed for their own personal gain against the business, and corporations that employ them" (Frank and Lynch 1992, 17). In other words, white-collar crimes are largely individual crimes benefitting the perpetrator or perpetrators. The case of Bernard Madoff, who ran the largest Ponzi scheme in U.S. history without the knowledge of others in his firm, is a recent example of white-collar crime. Corporate crimes, on the other hand, are those "socially injurious and blameworthy acts, legal or illegal, that cause financial, physical, or environmental harm, committed by corporations and businesses against their workers, the general public, the environment, other corporations and businesses, the government, or other countries" (Frank and Lynch 1992, 17).

This entry focuses on corporate crime. Such crime, at least for present purposes, encompasses those acts that are beneficial not for the individuals inside the corporation but instead for the corporation itself. Some overlap with white-collar offenses does exist, however, considering that the individuals who engage in these behaviors and represent the corporations are usually in a position to benefit from the illegal actions they undertake. Likewise, the line between organizational crime and corporate crime is indistinct, since criminals can often start corporations with the intention of committing crime or laundering their earnings from crime. This entry focuses mainly on the corporations themselves and provides more limited coverage of the individuals in the corporations.

Historical Background

Corporations have been in existence since the time of the Romans (Geis 1988). During this time, corporations existed in order to set up and control such legal entities as universities, churches, and associations. The king, in other words, gave corporate status to these entities, essentially granting them the ability to have legislative and judicial powers over themselves (Clinard and Yeager 1980). The East India Company is probably the first entity with such recognized corporate powers. Established in 1602, it is said to have been the first multinational corporation that issued stocks (Mason 1968). In the four centuries following the genesis of the East India Company, the corporation developed and its characteristics took shape. Legally speaking, a corporation had the following characteristics: "it was a body chartered or recognized by the state; it had the right to hold property for a common purpose; it had the right to sue and be sued in a common

name; and its existence extended beyond the life of its members" (Clinard and Yeager 1980, 22). Corporations of the 17th and 18th centuries engaged in many egregious acts. Using and trading African Americans as slaves and destroying Native American culture are two glaring examples (Sale 1990).

The Industrial Revolution and expanding enterprise in the 18th and early 19th centuries produced very wealthy and influential capitalist corporations. These effectively avoided regulation and control even though they engaged in such activities as fraud, price gouging, labor exploitation, manipulation of stocks, and maintaining unsafe work environments (Myers 1907; Clinard and Yeager 1980). The genesis of corporations in America was similar; such entities as towns, churches, associations, and universities became trusts with certain legal powers and authority. Colonial Americans disliked many of the British corporations that were ruling the American colonies. The Revolutionary War was fought in part to rid the colonies of British monopolistic rule. After the signing of the Declaration of Independence, Adam Smith ([1776] 1998) stated that the idea that corporations were needed for the betterment of government was unfounded. For the next 100 years, corporate charters, and therefore control over corporations and trusts, was rigid. Public opposition was fierce, and very few charters were approved; even when they were approved, legislatures limited the number of years they could last. At the expiration date, the corporation would be terminated and its shareholders would enjoy the division of assets. The colonists wanted to be free from the exploitation they suffered under British rule. After the Revolutionary War, the Founding Fathers were nervous about the power of corporations. Through various legal means, they limited the role of corporations in society solely for business purposes. Corporations could not interfere in other aspects of society. Several conditions were set forth regarding the establishment and activities of corporations: Corporate charters (licenses to exist) were granted for a limited time and could be revoked promptly for violating laws. Corporations could engage only in activities necessary to fulfill their chartered purpose. Corporations could not own stock in other corporations or own any property that was not essential to fulfilling their chartered purpose. Corporations were often terminated if they exceeded their authority or caused public harm. Owners and managers were responsible for criminal acts committed on the job. Corporations could not make any political or charitable contributions or spend money to influence lawmaking (Reclaim Democracy 2004).

The nature of corporations changed in Britain in 1844, with the passage of the UK Joint Stock Companies Act, which essentially allowed a corporation to define itself and its purpose. Investors in a corporation could now collect funds for a specified purpose. Control over corporations at this point moved from being a responsibility of the government to one of the courts. Limited liability was awarded to shareholders in 1855, meaning that the assets of individuals in the corporation would be protected from any bad behavior in which the corporation might engage. A landmark U.S. court decision in 1866 in the case of *Santa Clara County v. Southern Pac. R. Co.* (1886) granted

corporate personhood, which meant that corporations could now enjoy many of the rights and responsibilities of individuals. These rights included ownership of property, signing of binding contracts, and payment of taxes.

Several court cases would come to shape the idea of the corporation in the early formation of the republic. In the case of *The Rev. John Bracken v. the Visitors of William and Mary College,* the central issue was whether or not the charter grant of William and Mary College could be altered. The court decided that the corporation (the college) could indeed make changes—in other words, reorganize the curriculum and faculty—and that this would not violate the original charter.

The U.S. Supreme Court heard arguments on a similar matter in 1818. In the case of *Dartmouth College v. Woodward* (1819), Chief Justice John Marshall, the very same man who had argued in favor of the changes to the charter of William and Mary College, had to decide whether the state of New Hampshire could rewrite the charter of Dartmouth College, thereby intervening in its academic operations. Justice Marshall, writing for the majority, declared that it most certainly could not.

Less than 10 years later, the Supreme Court decision in the case of *Society for the Propagation of the Gospel in Foreign Parts v. Town of Pawlet* (1830) expanded the rights of corporations to be similar to those of natural persons.

During the Industrial Revolution, the United States was rapidly expanding both economically and geographically. Production and manufacturing swelled, as did international trade. In order to protect themselves from competition, large manufacturing businesses became corporations. These corporations began to take over not only the business world but also U.S. courts, politicians, and society (Brown 2003). Corporations soon tried to unchain the fetters that controlled their business dealings. It should not come as a surprise that corporations were granted personhood through the rulings of many of these court cases: the justices of the Supreme Court had loyalty to the propertied class.

The Nature of a Corporation

A corporation is a legal entity comprising persons but one that in some ways exists apart from those persons. It is this separation that gives corporations distinctive authority and control over its practices. The most important aspects of incorporation include the ideas of limited liability and perpetual lifetime. Limited liability gives members of a corporation limited personal liability for the debts and actions of the corporation. The key benefits of limited liability include the following:

1. A corporation has separate legal entity and distinction from its shareholders and directors, which means that both the directors and the company have completely separate rights and existences.
2. The liability of shareholders is limited to the amount unpaid on any shares issued to them.

3. Shareholders cannot be personally liable for the debts of the company.
4. Creditors can look to the company for payment, which can only be settled out of the company's assets; thus generally, the personal assets of the shareholders and directors are protected.
5. The company's name is protected by law; no one else is allowed to use it in that jurisdiction.
6. Suppliers and customers can have a sense of confidence in a business (Benefits of a Limited Company 2006).

Perpetual lifetime is also important to a corporation because it means that its structure and assets are permitted to exist past the lifetime of its members. These features give corporations tremendous power and ability in the business world. Individuals who own shares of stock in a corporation are called shareholders; nonprofit organizations do not have shareholders. Usually, a corporation will have a board of directors overseeing operations for the shareholders and administering the interests of the corporation. If a corporation were to dissolve, the members would share in its assets, but only those assets that remained after creditors were paid. Again though, through limited liability, members can be held responsible only for the amount of shares they had in the corporation.

The Corporation Today

Corporations today are looked at in both a positive and negative light. They are seen as the heart of capitalist and free-market economies and an outgrowth of the entrepreneurial nature of U.S. society. However, they are also seen as the mechanism by which exploitation of the people in the labor market exists. David O. Friedrichs (1996) best describes what corporations mean for society today:

> Many people hold corporations in high esteem. Millions of people are employed by corporations and regard them as their providers. Many young people aspire to become corporate employees. Corporations produce the seemingly endless range of products we purchase and consume, and they sponsor many of the forms of entertainment (especially television) we enjoy. They are also principal sponsors of pioneering research in many fields and a crucial element in national defense. Corporations are important benefactors of a large number of charities, public events, institutions of higher learning, and scientific enterprises. And of course the major corporations in particular, with their large resources, are quite adept at reminding us of their positive contributions to our way of life. (67)

Indeed, the corporation of the 21st century has its interests in profits and growth. The large corporations of today are vast and have enormous wealth. Yearly profits from U.S. corporations were estimated some years ago to be about $500 billion annually (Korten 1999), a figure that has only increased since. The cost of industry to U.S. taxpayers,

however, is easily more than $2.5 trillion per year (Estes 1996). Corporate exploitation of the citizenry and the workforce in society is not a shock, given the fact that profits are the main objective of the corporation. Stockholders and managers alike have a general interest in maximizing profits at the expense of others. Since corporate management usually holds a hefty share of the company's stock, managers tend to proceed with their own interests in mind, thereby augmenting their own wealth while common stockholders and workers consume the costs.

Corporate America is also well positioned to advance its interests through political corruption. Because of their abundant resources, corporations can have enormous influence on the polity and the outlining of public policy. The people at the top of corporations, the government, and the military all have connections to one another that allow them to advance common interests. If it is hard to believe that the American political system could be bought, consider that corporate donations to both political parties account for over 70 percent of their fund-raising contributions (Greidner 1991). Corporations have also been able to hide most of the political influence they enjoy and remain free from liability because the government has deregulated control over many of the industries that these corporations control.

The corporations of today have also been able to gain increasing control over key economic and political institutions because of mergers. The large corporations are conglomerates, meaning that they have gobbled up smaller companies and multiple industries, becoming producers of a wide array of products. These mergers and takeovers have led to corporations being able to cross-subsidize, meaning that they can sustain one business with the profits from another. Conglomerates have increased in size, number, and market share owing to multibillion-dollar mergers occurring in the 1980s. An outcome of these mergers has been the ability of these companies to expand their businesses geographically to the point where they now compete in the global marketplace and have widespread foreign and domestic assets. The increasing globalization of the world marketplace has allowed corporations to further violate laws in the name of profit without taking responsibility for their actions. By becoming multinational, corporations can, for example, violate the antitrust laws of a country in which they do business while obeying the antitrust laws of their own country.

Although Third World countries and the citizens who inhabit them do enjoy some advantages from globalized economic business, they too pay a penalty in terms of workforce abuses. As the global marketplace expands, the wrongdoings of these multinational corporations are likely to become more pronounced (Friedrichs 1996).

Laws and Legal Origins of Corporate Crimes

Although images of crime and criminals today have increasingly included the actions of business executives and members of the upper class, this has not always been the case. Corporations historically have been able to avoid prosecution because of the limited

liability they have written into their charters. It has also been difficult to bring charges against an entity because of a lack of a body to punish and because the populace finds it difficult to grasp the idea that corporations, which are not persons, could offend. Nevertheless, there has been a rapid rise in the criminal liability that corporations can be accountable for under various laws concerning securities, antitrust violations, and the environment. Charges against corporate offending are normally levied against individuals in the corporation; however, the corporation itself can be held responsible and sanctioned for certain offenses. At both the federal and state levels, legislation has been promulgated against corporate criminal offenses. The U.S. Constitution, under its commerce clause, allows the control of corporate offenses by the federal government. Numerous federal agencies also play a part in enforcing this legislation. Such agencies as the Internal Revenue Service, the Environmental Protection Agency, the Federal Bureau of Investigation, the Secret Service, the Securities and Exchange Commission, and others attempt to control and regulate corporate activity.

Early notions of liability held that a corporation could not have criminal charges applied to it. Holding a corporation liable was difficult for a number of reasons (Khanna 1996). First, corporations are fictional entities, not individuals. Second, there are moral problems in proving that a corporation is capable of formulating criminal intent. Third, courts had trouble making corporations criminally responsible for acts not listed in their charters. Finally, difficulty stemmed from criminal procedural rules that the accused be brought into court. In the United States, two doctrines have been of primary use in holding corporations criminally responsible: the Model Penal Code, section 2.07, which makes the corporation responsible for the behaviors of leaders in the organization, and *respondiat superior,* which holds the employer responsible for the criminal acts of its employees. Even though these two doctrines are in place, many prosecutors fail to act against corporations because the shareholders, not the corporate elite, will suffer most from any punishment a corporation receives. The Supreme Court applied the *respondiat superior* doctrine initially in the case of *New York Central & Hudson River Railroad v. United States,* where the company was not applying mandated shipping rates to all customers equally. The Supreme Court decided that this action violated the Elkins Act, and the corporation was subject to penalties under that act.

Other courts have also made similar rulings under the *respondiat superior* doctrine; however, critics have pointed out that the doctrine is better suited for civil torts than criminal liability. Section 2.01 of the Model Penal Code ameliorates this criticism because it enforces liability for the actions of corporate employees. Today, there are only two instances when corporations cannot be held liable for criminal actions: if the corporation is incapable of committing the crime (these would involve such acts as arson) or where there is no fine attached as punishment for the action. The Model Penal Code outlines three categories of corporate offenses. The first requires *mens rea,* or a guilty mind, and traditionally comprises individual offenses, including embezzlement

and fraud. Corporations may be charged in these cases if "the offense was authorized, requested, commanded, performed or recklessly tolerated by the board of directors or by a high managerial agent acting in behalf of the corporation within the scope of his office or employment" (Model Penal Code § 2.07 [1] [c]). The second category of offenses includes such acts as collusion calling for *mens rea* that can be committed by corporations. Corporations can be punished for these offenses if, during the scope of employment, an agent acted to benefit the corporation. Under § 2.07 (5) of the Model Penal Code, however, the corporation may not be punished if "the defendant proves by a preponderance of evidence that the high managerial agent having supervisory responsibility over the subject matter of the offense employed due diligence to prevent its commission." The third category covers the strict liability crimes. Under the Model Penal Code, and on the basis of the *respondeat superior* rule, corporations can be held liable consistent with strict liability principles; in other words, there is no need to show intent to benefit a corporation.

The case of *New York Central & Hudson River Railroad v. United States* provides the framework for the idea that a corporation can be held liable for the deeds of agents acting in the capacity of their jobs. The notion of agents acting within their employment capacity is important in charging liability to the corporation. Other components of imputing liability are that employees have the authority to carry out the behavior in question. This authority "attaches when a corporation knowingly and intentionally authorizes an employee to act on its behalf" (Viano and Arnold 2006, 314). The government also has to show that the individual whose actions are in question does indeed have a relationship to the agency (*United States v. Bainbridge Management* 2002). The concept of acting within the scope of an agent's authority has generally been determined in different ways with regard to federal and state control. Federally, corporate criminal liability can be imputed based on the responsibilities of the agent, not his or her rank (*In re Hellenic* 2001). The goal of the government is to impute liability on the corporation through an action of an employee.

At the state level, some states have limited assigning criminal liability only to those in a high managerial position. For instance, 18 Pa. C.S.A. § 307 states that liability may be imputed if "the commission of the offense was authorized, requested, commanded, performed or recklessly tolerated by the board of directors or by a high managerial agent acting in behalf of the corporation within the scope of his office or employment." Other states have applied liability through judicial precedent *(North Dakota v. Smokey's Steakhouse, Inc.* 1991). Further, others have been able to impute liability in cases even where high-level management disapproved of the employee's actions (*New Hampshire v. Zeta Chi Fraternity* 1997; *Ohio v. Black on Black Crime, Inc.* 1999). However, corporate criminal liability will not be imposed unless the actor behaved in a manner deliberately intended to benefiti the corporation. This can be the case even if, for instance, the corporation did not actually benefit. The corporation would not be criminally liable where the employee's

behaviors were counter to the benefit of the corporation (*Standard Oil Company of Texas v. United States* 1962).

Recent Legislation

Sarbanes-Oxley Act

The Sarbanes-Oxley Act of 2002, also called the Public Company Accounting Reform and Investor Protection Act of 2002, was enacted in response to a number of questionable business practices by major corporations (Sarbanes-Oxley Act of 2002, Pub. L. No. 107–204, 116 Stat. 804 [2002])—specifically, the Enron, WorldCom, and Tyco debacles, which caused a deterioration in the trust of the accounting and reporting practices of these companies. Included in this legislation were increases in punishments under the White Collar Crime Penalty Enhancement Act. The penalty increases included longer prison sentences for those found guilty of certain Employee Retirement Income Security Act (ERISA) infractions. In addition, falsely certifying Securities and Exchange Commission (SEC) reports became criminal under the Sarbanes-Oxley Act. In all, nearly a dozen sections are included in the act, obligating certain accountabilities of corporate officials and mandating penalties for their violation. The act also set up the Public Company Accounting Oversight Board, whose charge it is to regulate, inspect, and discipline accounting firms. Major provisions of the Sarbanes-Oxley Act include

1. Obligation for public companies to assess and give details of the efficiency of their fiscal reporting
2. Requirement that CEOs and CFOs certify their fiscal reports
3. Increased penalties, both civil and criminal, for security law infringement
4. Stipulation that no personal loans can be given to any executive officer
5. Requirement of independent auditing committees for companies registered on stock exchanges
6. Guarantee of back pay and compensatory damages, and protection of employees who act as whistleblowers

Criminal Antitrust Penalty Enhancement and Reform Act

Legislation against antitrust violations is not new. The Sherman Antitrust Act was promulgated in 1890 to place a limit on monopolistic practices. Although this act was, for the most part, unenforced for the last 100 years, President George W. Bush signed the Criminal Antitrust Penalty Enhancement and Reform Act in 2004. This act essentially raised the upper limit penalties in cases of corporate crime to $1 million and 10 years imprisonment for convicted individuals and $100 million fines for corporations found guilty of antitrust violations. Corporations and their agents may now face severe penalties if convicted.

Types of Corporate Crime

As stated earlier in this chapter, corporate crime involves injurious acts that result in physical, environmental, and financial harms, committed by entities for their own benefit (Frank and Lynch 1992). Although there is overlap with white-collar crime, occupational crime, and other types of crime, corporate crime encompasses those behaviors that are engaged in by a corporation for its benefit. Corporate crime can result in political and economic consequences as well as physical harm, injury, and death to persons. Friedrichs (1996) sets forth a comprehensive list of corporate offenses that includes fraud, tax evasion, price fixing, price gouging, false advertising, unfair labor practices, theft, monopolistic practices, toxic waste dumping, pollution, unsafe working conditions, and death.

Fraud, Tax Evasion, and Economic Exploitation

Fraud, tax evasion, and economic exploitation have serious consequences for society and the citizenry because they allow corporations to raise their profits, lessen their tax burdens, and at the same time underpay their employees. Fraud covers violations of the Internal Revenue Code and involves corporations defrauding the government and taxpayers, usually through contractual agreements they hold with the government.

The war in Iraq that began in 2003 provided numerous instances, in an attempt to make a larger profit, of companies overcharging the U.S. government—and ultimately taxpayers—for services rendered. A report by Congress shows that the Department of Defense had 149 contracts in Iraq with 77 different companies that were worth approximately $42 billion; this report also shows that, according to government auditors, Halliburton, the largest contractor in Iraq, and its subsidiaries, namely Kellogg, Brown, and Root, submitted questionable bills in the amount of $1.4 billion (U.S. Senate Democratic Policy Committee 2005). Testimony from former Halliburton employees revealed that the company charged the U.S. government $45 for cases of soda, $100 to clean 15-pound bags of laundry, and $1,000 for video players; it also torched and abandoned numerous $85,000 trucks instead of making the minor repairs the trucks needed.

Other examples of fraud include (1) the effort to clean up the damage to the Gulf Coast caused by Hurricane Katrina, where a report to Congress identifies 19 government contracts worth about $8.75 billion that overcharged, wasted, or otherwise mismanaged the money received from the government), and (2) the health care industry, where, for example, in July 2006, Tenet Healthcare agreed to pay back $900 million to the federal government for violations of Medicare billing (although the company is alleged to have stolen $1.9 billion).

Recently, Congress and the Securities and Exchange Commission (SEC) investigated the actions of the Wall Street investment firm Goldman Sachs in the lead-up to the 2008–2009 financial crises. Goldman was alleged to have sold high-risk or faulty investment products (specifically, a kind of mortgage-backed security) while at the same

time hedging its bets that the products would fail in the market, thus allowing the firm to profit at investors' expense. There were also allegations that Goldman (and others) deceived the rating agencies that assist consumers in evaluating investment products. By July 2010, Goldman had decided to settle the case with the SEC—for the sum of $500 million. A week later, Congress passed, and President Barack Obama signed, the Dodd-Frank Wall Street Reform and Consumer Protection Act, a law aimed at restricting the kinds of practices that caused Goldman to be investigated.

Price Fixing, Price Gouging, and False Advertising

With price fixing, companies that are supposed to be competitors collude to manipulate the cost of items, keeping them artificially high and thereby maximizing profits. Archer Daniels Midland (ADM), among other companies, was convicted of price fixing commodities used in common processed foods. The company paid a $100 million antitrust fine. Similarly, Hoffman-La Roche, a vitamin company, was fined $500 million for attempting to fix the price of some vitamins worldwide, and several music industry firms have been accused of fleecing consumers to the tune of $480 million in CD overpricing (Simon 2006).

Price gouging involves taking advantage of consumers who are at risk, raising prices during times of scarcity of products, or charging the highest price possible because of monopolies, manipulation of the market, or biases in the law. U.S. corporations have long been accused of taking advantage of the poor. "Many food chains find that it costs 2 or 3 percent more to operate in poor neighborhoods, yet low-income consumers pay between 5 and 10 percent more for their groceries than those living in middle-income areas" (Simon 2006, 12). During times of scarcity of products, price gouging is frequent. In 2004, the southeastern coast of the United States was hit by a number of hurricanes. In the aftermath of the storms, the Florida Department of Agriculture and Consumer Services received more than 3,000 complaints of price gouging by hotels, gas stations, and other retail service providers (Simon 2006).

False advertising is nothing new, either. Consumers in the United States have been deceived into purchasing billions of dollars of products or services that never lived up to their claims. Food products giving false nutritional values and products claiming certain utility through false demonstrations are examples of false or deceptive advertising. Before reforms were enacted in 2009, credit card companies routinely promoted cards with no fees in bold print and, in small type, hid additional costs and contradictory information, including calculations of interest for new purchases.

Corporate Theft, Exploitation, and Unfair Labor Practices

A typical scenario of white-collar offending involves employees stealing from their employers, but the opposite is sometimes also true. Examples are companies that bilk employees out of proper overtime pay, violate minimum wage laws, fail to make Social

Security payments, or use employee pension funds improperly. Not allowing labor to unionize, strike, or collectively bargain are three examples of unfair labor practices. The result is a loss of millions of dollars by employees who cannot negotiate or who are passed over for promotion on the basis of race, ethnicity, gender, or age. One of the largest alleged exploiters of labor in the United States is Wal-Mart. The allegations of wrongdoing against Wal-Mart are numerous and varied (Buckley and Daniel 2003). Charges of unfair labor practices make up most of the charges filed against the company, although there have also been reports of violations of health coverage among Wal-Mart employees (Bernhardt, Chaddha, and McGrath 2005).

Unsafe Environmental Practices

The most prevalent form of corporate crime may be pollution. Corporations account for a large share of environmental violations. As of 2010, corporations were manufacturing more toxic waste than ever, in excess of 600 pounds per person annually, and improper disposal of this deadly waste occurs in about 90 percent of cases (Friedrichs 1996). The detrimental consequences of this are obvious: about 25 percent of U.S. residents will get cancer in their lifetimes, and a study by Cornell University finds that roughly 40 percent of deaths worldwide can be attributed to environmental pollutants (Segelken 2006). Pollution has also been linked to health problems other than cancer—things like birth defects, heart and lung disease, and sterility (Brownstein 1981). The Exxon Valdez oil spill in 1989 and the BP–Deepwater Horizon spill in 2010 are two of the worst cases of environmental pollution in world history. In 1991, Exxon pleaded guilty to criminal charges and paid a $100 million fine, followed three years later by payment of $5 billion in punitive damages. In the case of BP–Deepwater Horizon, investigations were ongoing as of mid-2010; but even in the early stages questions were raised about the readiness and safety status of key pieces of equipment used by the company in extracting oil from the Gulf of Mexico.

Unsafe Consumer Products

Again, corporations may not intend to harm consumers, but their desires to maximize profits often lead them to cut corners when it comes to product safety. Everything from the food we eat, to the medicines we take, to the vehicles we drive, to any of the products we use on a daily basis can be dangerous to our health and well-being. According to the Consumer Product Safety Commission (2003), whose charge it is to protect the public from unreasonable risks of serious injury or death, injuries, deaths, and property damage from consumer product incidents cost us more than $700 billion annually. Deaths occurring from unsafe products or product-related accidents are alleged to number 70,000 annually (Consumer Product Safety Commission 2003). Although the FDA promulgates the regulation and proper labeling of food products, corporations seem to lure us into eating unhealthy and mislabeled foods that may, because of processing, lead to many preventable diseases.

Consumer products imported into the United States from foreign companies have fueled a number of recent safety warnings. According to Schmidt (2007), roughly 25,000 shipments of food arrive in the United States each day from over 100 countries; the FDA inspects about 1 percent of these imported foods, down from 8 percent in 1992. The U.S. Department of Agriculture, on the other hand, inspects about 16 percent of imported meats and poultry, but about 80 percent of the U.S. food supply is the responsibility of the FDA (Schmidt 2007). The Centers for Disease Control and Prevention (CDC) estimates that there are 5,000 deaths and 76 million illnesses caused by unsafe food in the United States annually (Schmidt 2007). Funding for FDA food safety has increased in recent years, but it is still not adequate.

Recently, the pharmaceutical industry has been one of the main culprits in much of the unsafe manufacturing and distribution of products that have a variety of adverse consequences for users, one of which is death. The pharmaceutical industry had profits of $35.9 billion in 2002, which accounted for half of the profits of all the Fortune 500 companies in that same year (Public Citizen's Congress Watch 2003). Despite these profits and the exorbitant salaries received by the CEOs of these companies, the nation is not necessarily healthier because of the behaviors of some corporations in this industry. When pregnant women used the drug thalidomide in the 1960s, many of their babies were born with severe defects; this was an early example of the harmful effects that unregulated and untested drugs can have. Dow Corning provides another example of a corporation that did not conduct adequate testing or divulge the potential harmful effects of the silicone breast implant, one of its products, before putting it on the market. More recently, Vioxx and Bextra, two drugs used for treating arthritis and pain, were found to increase the risk of heart attack or stroke, and the drug Prozac and similar antidepressants were found to be linked to higher rates of suicide among youth. Women who took hormone replacement drugs (to relieve symptoms of menopause) were discovered to be at risk of developing breast cancer (Mintzes 2006).

The Consumer Product Safety Commission is responsible for overseeing over 15,000 products for the public's protection. More than 800 persons die annually from materials that are not protected against flammability, and another 800 perish and 18,000 are injured from unsafe equipment (Consumer Product Safety Commission 2003). The bottom line is that these corporations are more worried about their profits than the health and safety of the consumers who purchase them. Even with tougher laws, increased prosecution, heftier fines, and negative publicity, these companies have been unaffected and continue to be the most profitable corporations in the nation.

Unsafe Working Conditions

In 2003, the Bureau of Labor Statistics, a division of the U.S. Department of Labor, reported 4.4 million work-related illnesses and injuries (Reiman 2007). According to Reiman (2007), "Much or most of this carnage is the consequence of the refusal of management to pay for safety measures, of government to enforce safety, and sometimes of

management's willful defiance of existing law" (82). Although accurate statistics are hard to come by, deaths caused by inhalation of asbestos—and the fatalities from unsafe conditions in the chemical, mining, and textile industries throughout our history—speak volumes about the numbers of persons who have died prematurely due to unsafe work environments.

Conclusion: The Study of Corporate Crime

Why is it important to study corporate crime? The primary reasons for doing so, and doing more of it, are as follows:

1. There is still debate about whether current research and theorizing about crime can extend to white-collar and corporate criminals.
2. There has been a lack of focus on enforcement of these crimes.
3. With an increase in globalization of companies, there will be more opportunities to offend unless laws against corporate criminal liability are further formalized.
4. Despite increased pressure to punish corporate criminals, little funding has been allocated to the control and prevention of white-collar and corporate offending by comparison with that dedicated to street crime.
5. Because many large corporations have made headlines owing to their engagement in egregious behavior, the public has shown a renewed interest in the subject of corporate crime.
6. The impact of corporate offending regarding death and monetary loss amounts to a far greater detriment to society than all eight Uniform Crime Reports index offenses (i.e., homicide/manslaughter, robbery, rape, assault, burglary, larceny/theft, motor vehicle theft, and arson) added together.
7. If we can increase the public's appreciation of the seriousness of corporate offending, the result may be increased pressure on the legislature and criminal justice system to give higher priority to the enforcement of laws against these offenses.

See also **Class Justice; Bank Bailouts (vol. 1); Executive Pay (vol. 1); Corporate Governance (vol. 1); Corporate Tax Shelters (vol. 1)**

Legal Citations

Dartmouth College v. Woodward, 17 U.S. 518 (1819).
In re Hellenic, 252 F.3d 391 (2001).
New Hampshire v. Zeta Chi Fraternity 696 A.2d 530 (1997).
North Dakota v. Smokey's Steakhouse, Inc. 478 N.W. 2d 361(1991).
Ohio v. Black on Black Crime, Inc. 736 N.E. 2d 962 (1999).
Santa Clara County v. Southern Pac. R. Co. 118 U.S. 394 (1886).
Society for the Propagation of the Gospel in Foreign Parts v. Town of Pawlet, 29 U.S. 480 (1830).

Standard Oil Company of Texas v. United States 307 F. 2d 120 (1962).
United States v. Bainbridge Management, No. 01 CR 469–1, 6 (2002).

Further Reading

Benefits of a Limited Company Web site. 2006. fletcherkennedy.com/benefits_of_a_limited_company.html

Bernhardt, Annette, Anmol Chaddha, and Siobhán McGrath, "What Do We Know About Wal-Mart? An Overview of Facts and Studies for New Yorkers." *Brennan Center for Justice.* August 2005.

Brown, Bruce, *The History of the Corporation.* Sumas, WA: BF Communications, 2003.

Brownstein, R., "The Toxic Tragedy." In *Who's Poisoning America—Corporate Polluters and Their Victims in the Chemical Age,* ed. R. Nader, R. Brownstein, and J. Richard. San Francisco: Sierra Club Books, 1981.

Buckley, Neil, and Caroline Daniel, "Wal-Mart vs. the Workers: Labour Grievances Are Stacking Up Against the World's Biggest Company." *Financial Times* (November 20, 2003).

Clinard, Marshall B., and Peter Yeager, *Corporate Crime.* New York: Free Press, 1980.

Coleman, James, *The Criminal Elite.* New York: St. Martin's Press, 1985.

"Corporate America's Woes, Continued." *Economist* (November 28, 2002).

Consumer Product Safety Commission, *2003 Annual Report.* www.cpsc.gov/cpscpub/pubs/reports/2003rpt.pdf

Estes, Ralph, *Tyranny of the Bottom Line.* San Francisco: Berrett-Koehler, 1996.

Frank, Nancy K., and Michael J. Lynch, *Corporate Crime, Corporate Violence: A Primer.* Albany, NY: Harrow and Heston, 1992.

Friedrichs, David O., *Trusted Criminals: White Collar Crime in Contemporary Society.* Belmont, CA: Wadsworth, 1996.

Geis, Gilbert, "From Deuteronomy to Deniability: A Historical Perlustration on White-Collar Crime." *Justice Quarterly* 5 (1988): 7–32.

Gitlow, Abraham L., *Corruption in Corporate America: Who Is Responsible? Who Will Protect the Public Interest?* Lanham, MD: University Press of America, 2007.

Gray, Kenneth R., Larry A. Frieder, and George W. Clark, *Corporate Scandals: The Many Faces of Greed.* St. Paul, MN: Paragon House, 2005.

Greidner, William, "Who Will Tell the People: Betrayal of American Democracy." *Washington Post* (September 30, 1991).

Hartmann, Thom, *Unequal Protection: The Rise of Corporate Dominance and the Theft of Human Rights.* New York: Rodale Press, 2002.

Kappeler, V., M. Blumberg, and G. Potter, *The Mythology of Crime and Criminal Justice.* Prospect Heights, IL: Waveland Press, 2000.

Khanna, V. S., "Corporate Criminal Liability: What Purpose Does It Serve?" *Harvard Law Review* 109 (1996): 1479.

Korten, David, *The Post-Corporate World.* San Francisco: Berrett-Koehler, 1999.

Mason, Edward S., "Corporation." In *International Encyclopedia of the Social Sciences,* Vol. 3, ed. David L. Sills and Robert K. Merton. New York: Macmillan and Free Press, 1968.

Michalowski, Raymond J., and Ronald C. Kramer, eds., *State-Corporate Crime: Wrongdoing at the Intersection of Business and Government.* New Brunswick, NJ: Rutgers University Press, 2006.

Mintzes, Barbara, "Disease Mongering in Drug Promotion: Do Governments Have a Regulatory Role?" *PLOS Medicine* 3 (April 2006): e198.

Myers, Gustavus, *History of the Great American Fortunes.* New York: Modern Library, 1907.

Public Citizen's Congress Watch, "2002 Drug Industry Profits" (2003). www.citizen.org/documents/Pharma_Report.pdf

Reclaim Democracy, *Our Hidden History of Corporations in the United States* (2004). www.reclaimdemocracy.org

Reiman, Jeffrey, *The Rich Get Richer and the Poor Get Prison: Ideology, Class, and Criminal Justice,* 8th ed. Boston: Allyn and Bacon, 2007.

Rosoff, Stephen M., Henry N. Pontell, and Robert H. Tillman, *Profit without Honor: White-Collar Crime and the Looting of America.* Upper Saddle River, NJ: Prentice Hall, 2007.

Sale, Kirkpatrick, *The Conquest of Paradise.* New York: Knopf, 1990.

Schmidt, Julie, "U.S. Food Imports Outrun FDA Resources." *USA Today* (March 18, 2007).

Schwartz-Noble, Loretta, *Poisoned Nation: Pollution, Greed, and the Rise of Deadly Epidemics.* New York: St. Martin's Press, 2007.

Segelken, Roger, "Environmental Pollution and Degradation Causes 40 Percent of Deaths Worldwide, Cornell Study Finds." *Cornell News.* September 30, 1998. www.news.cornell.edu/releases/Sept98/ecodisease.hrs.html

Simon, David R., *Elite Deviance.* Boston: Pearson/Allyn and Bacon, 2006.

Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations.* New York: Oxford University Press, 1998 [1776].

U.S. Senate Democratic Policy Committee, *Halliburton's Questioned and Unsupported Costs in Iraq Exceed $1.4 Billion.* U.S. House of Representatives Committee on Government Reform, 2005.

Viano, Michael, and Jenny Arnold, "Corporate Criminal Liability." *American Criminal Law Review* (March 22, 2006).

CRUEL AND UNUSUAL PUNISHMENT

William L. Shulman

The Eighth Amendment to the U.S. Constitution, in one of its major pronouncements, prohibits the imposition of cruel and unusual punishment. Although most of the issues addressed by the U.S. Supreme Court regarding the interpretation of this clause center on applications of capital punishment, the true battleground has concerned something different. The question of whether the Eighth Amendment requires the Court to strike down sentences of any type as being "disproportionate"—that is, sentences that seem to be greater than the crime warrants—has been a contentious and confusing one with regard to which the Court has struggled to define its role generally and to articulate a test or standard when it has chosen to rule on the proportionality of sentences.

Background

In the Court's own words, such law as it has established in the proportionality area is a "thicket of Eighth Amendment jurisprudence" and has not been "a model of clarity" (*Lockyer v. Andrade* 2003). Although the Court has found death sentences to be disproportionate in crimes other than murder (*Coker v. Georgia* 1977) and disproportionate where the defendant is either mentally retarded (*Atkins v. Virginia* 2002) or a juvenile (*Roper v. Simmons* 2005), it has struggled to define its involvement in noncapital sentences.

For a long period extending through the 20th century, it appeared that the Court was prepared to intervene only in a non–death sentence if that sentence involved something harsh and unusual in addition to incarceration. In *Weems v. U.S.* (1910), for example, the defendant received a 12-year sentence to be served in hard and painful labor, with the defendant chained at the wrists and ankles, for the crime of falsifying a public document. In addition, the punishment included the loss of civil rights such as parental authority and permanent surveillance by the government. The Court, in striking down the sentence as a violation of the Eighth Amendment, noted that other more serious crimes in the jurisdiction were punished less severely; it suggested that the punishment was not just but was of "tormenting" severity (*Weems v. U.S.* 1910, at 381).

Weems notwithstanding, the cases of *Rummel v. Estelle* (1980) and *Hutto v. Davis* (1982) appeared to represent the norm of the Court's approach to this issue. William James Rummel was charged under Texas law with obtaining $125 under false pretenses, a felony in Texas. Moreover, because Rummel had previously been convicted of fraudulent use of a credit card to obtain $80 worth of goods and with passing a forged check in the amount of $28.36, he qualified under Texas law as a habitual criminal. Rummel was prosecuted and convicted under that recidivist statute and given the mandatory life sentence the statute provided. The life sentence under Texas law involved the possibility that the defendant could be paroled in as early as 12 years, a factor the Court thought important in assessing the true nature of the punishment.

The Court, in reviewing and denying Rummel's Eighth Amendment challenge, stated that to the extent that proportionality claims had been successful, they had been raised in the context of capital cases and had been a function of the Court's long-standing view of the unique nature of death as a punishment. The Court further stated that non–death sentence challenges had been successful only exceedingly rarely and involved an unusual corporal type of punishment like that found in *Weems*. The *Rummel* Court could not have been clearer when it stated, "Given the unique nature of the punishments considered in *Weems* and in the death penalty cases, one could argue without fear of contradiction by any decision of this Court that for crimes concededly classified and classifiable as felonies, that is, as punishable by significant terms of imprisonment in a state penitentiary, the length of the sentence actually imposed is purely a matter of legislative prerogative" (*Rummel v. Estelle* 1980, at 274).

Two years after *Rummel,* the Court decided in *Hutto* that a prison term of 40 years and a fine of $20,000 for possession and distribution of approximately nine ounces of marijuana was not disproportionately in violation of the Eighth Amendment and was a matter of legislative prerogative. The fact that the opinion was per curiam (signed by the Court as a whole and not authored by any one justice) seemed to underscore the strength of the Court's hands-off approach.

Key Events

The key event occurring just a year after *Hutto* was the Supreme Court case of *Solem v. Helm* (1983), in which the Court seemingly broke with, if not clear precedent, at least with the strong tenor of its prior proportionality cases. *Solem,* which dealt with a similar situation to *Rummel,* announced what is clearly a proportionality test to assess the constitutionality of noncapital sentences under the Eighth Amendment.

The *Solem* test contained three objective factors a court should consider in determining if the sentence imposed is consistent with the Eighth Amendment. First, a court should look to the gravity of the offense and the harshness of the penalty. Second, a court should compare the sentences imposed on other criminals in the same jurisdiction. Finally, courts should compare the sentences imposed for commission of the same crime in other jurisdictions.

When the Court applied this three-pronged test to the facts of *Solem,* it held the sentence of life without parole to be disproportionate to the crime involved and cruel and unusual in violation of the Eighth Amendment. First, Helm, the defendant, was convicted of the offense of writing a "no account" check for $100. This, in turn, triggered the application of South Dakota's recidivist statute owing to his prior record of six nonviolent felonies. Under the statute, a defendant would receive a mandatory life sentence without the possibility of parole (unlike *Rummel,* in which parole was a possibility). In assessing the gravity of the offense in relation to the harshness of the penalty, the Court clearly came down on the defendant's side.

In terms of the application of the second part, the Court noted that in South Dakota, Helms was sentenced to the same punishment reserved for much more serious crimes such as murder, kidnapping, first-degree rape, and other violent crimes. Finally, in assessing how the defendant would have been treated in other jurisdictions, the Court noted that in 48 of the 50 states, he would have received a less severe sentence.

The significance of this case was its remarkable departure from the Court's long years of hands off on this issue. After what had clearly been a position of deferring to state legislatures and their assessments of the proper punishments for crimes, *Solem* seemed to open up the possibility that the courts had entered the fray. The question the case presented was whether the Supreme Court was truly committed to this new activist approach or viewed the case as an aberration dealing with a particularly unusual set of facts and circumstances.

Further Legal Developments

Of course, the cases discussed in the background section make up a significant portion of the Court's legal decisions in this area. It has been the Court's work since *Solem,* however, that has either, depending upon your perspective, fixed the aberration of *Solem* or further muddied the waters with another unworkable standard.

The case of *Harmelin v. Michigan* (1991) was the first important proportionality case after *Solem.* It involved the application of a Michigan mandatory life sentence law for certain drug offenses. Harmelin, the defendant, was convicted of possessing 672 grams of cocaine and sentenced to a mandatory life sentence without the possibility of parole. Early in the opinion, it was clear how the Court was going to deal with *Solem*'s insistence on performing the three-part proportionality test when it characterized the *Solem* decision as "scarcely the expression of clear and well established constitutional law." (*Harmelin v. Michigan* 1991, at 965). Justice Antonin Scalia's lengthy and scholarly discussion of the history of the Eighth Amendment and its historical precedent in the English Declaration of Rights of 1689 supported his interpretation that the amendment prohibited only cruel and unusual punishment (in other words, the manner, not the length, of the punishment) and did not support a proportionality requirement. Important to his interpretation was the notion that proportionality as a legal concept goes back to the Magna Carta and that numerous states at the time of the Constitution had specific provisions requiring proportionality in their sentencing laws, meaning that had the framers intended to graft that notion to the Eighth Amendment, they were well acquainted with the idea and could easily have done so. Scalia concluded his analysis by stating that the "cruel and unusual" language of the Eighth Amendment relates to the method of punishment only and not to the length of the punishment.

The final pronouncement of the Court on this matter came in *Ewing v. California* (2003), a case that dealt with the application of California's three-strikes law to a defendant with a lengthy history of criminal convictions but whose only triggering crime was the theft of three golf clubs. Ewing was sentenced under the statute to 25 years to life in prison.

Although the opinion did not garner a majority of the Court, the reasoning of Justice Sandra Day O'Connor's lead opinion relied on the framework set out by Justice Anthony Kennedy in his earlier concurrence in *Harmelin.* Kennedy found that the Eighth Amendment recognizes a limited proportionality principle in noncapital cases, which forbids the imposition of extreme sentences that are "grossly disproportionate" to the crime (*Ewing v. California* 2003).

Justice Kennedy identified four principles to consult before making the final determination under the Eighth Amendment. The Court was to look at the primacy of the legislature, the variety of legitimate penological schemes, the nature of the federal system, and the requirement that proportionality review be guided by objective factors. In applying these factors to the specifics of *Ewing,* the Court focused primarily on California's

legitimate interests of deterring and incapacitating offenders with long and serious records. These legitimate penological interests, when combined with the primacy of (deference to) the legislature, shaped the Court's affirmation of the sentence.

Conclusion

Although the concept of proportionality of punishment has a long and rich history in England going back to the Magna Carta, and although it has been recognized and applied in capital and noncapital cases in the United States for almost a century, it appears to have gone the way of the Edsel and the dial phone (Donham 2005; see sec. IV for an excellent summary of historical evidence). The future of the Supreme Court's Eighth Amendment jurisprudence, in other words, does not appear to include general proportionality as a working doctrine.

Instead, there appear to be three vastly different approaches on the table, none of which appears to garner a majority of the Court's votes. There is the more liberal

MAYBE WE WERE WRONG: THE REFORM MOVEMENT IN SENTENCING

It is no coincidence that *Rummel, Solem,* and *Harmelin* occurred during the decade of the 1980s, a decade ushered in by the so-called War on Drugs and the movement to mandatory long-term sentences. States followed the call from the federal government that what was needed to stem the drug and violence epidemic in this country was a tougher "lock-'em-up" correctional policy. What followed was the increase of arrests and longer sentences, often triggered by recidivist or "three strikes" laws, and the construction of new prisons.

Lawmakers and policy makers have begun to look at the wisdom of that movement, which has several disturbing results. The policies of locking up offenders for longer times and denying them parole opportunities have resulted in an increasingly elderly and infirm prison population (at great cost to the public) and caused many inmates—denied any incentive for early release—to become unmanageable.

Reform efforts have come on both state and federal levels. On the federal level, the Second Chance Act addresses the issue of prisoner reentry and would authorize funding for model community programs to assist inmates who are reentering society. On the state level, a growing number of states have either eliminated some mandatory sentencing laws, eliminated recidivist or three-strikes laws, or reinstituted discretionary parole for certain offenses.* At the same time, in 2009 the state of Texas found it fit to execute (for rape and murder) Bobby Wayne Woods, a man whose IQ was between 68 and 86 and could therefore, in the eyes of his defense attorneys and others, claim mental incompetence (McKinley 2009).

*"The Right Has a Jailhouse Conversion." *New York Times Magazine* (December 24, 2006): 47; Families Against Mandatory Minimums. "State Responses to Mandatory Minimum Laws." 2010. http://www.famm.org

position of Justices Ruth Bader Ginsburg and Stephen Breyer, and presumably of Sonya Sotomayor and Elena Kagan (both new appointees), which suggests that a return to the *Solem* three-part test is appropriate. At the other end of the spectrum, Justices Antonin Scalia and Clarence Thomas adhere to the position that the Eight Amendment contains no proportionality requirement. Finally, and perhaps the most likely ground to be taken, is Justice Kennedy's concurring opinion in *Harmelin,* which recognizes a "narrow proportionality principle" in the Eighth Amendment. Of the two Bush appointees, Chief Justice John Roberts and Associate Justice Samuel Alito, we know only that they have upheld the right to use lethal injection in capital cases and were in the minority in a ruling deciding whether life sentences for juvenile offenders constitutes cruel and unusual punishment—five justices, including Kennedy, stated that such sentences are improper (except in certain homicide cases) (Barnes 2008; Bravin 2010).

It is also possible to envision a case in which all nine justices would agree on reversing a particular sentence under the Eighth Amendment if it were so extreme as to be unacceptable to any rational person at any time at any place. The idea that legislatures could make overtime parking a felony punishable by life is theoretically possible without a proportionality principle. This notion particularly irked Justice Byron White in his *Harmelin* dissent (*Harmelin v. Michigan* 1991, at 1018), but it may take more than chiding from fellow justices about frightening scenarios to gain unanimity in an area in which most justices have seemed content to go their own way.

See also **Death Penalty; Prisons—Supermax; Three-Strikes Laws**

Legal Citations

Atkins v. Virginia, 536 U.S. 304 (2002).
Coker v. Georgia, 433 U.S. 584 (1977).
Ewing v. California, 538 U.S. 11 (2003).
Harmelin v. Michigan, 501 U.S. 957 (1991).
Hutto v. Davis, 454 U.S. 370 (1982).
Lockyer v. Andrade, 538 U.S. 63, 66 (2003).
Roper v. Simmons, 125 S.Ct. 1183 (2005).
Rummel v. Estelle, 445 U.S. 263 (1980).
Solem v. Helm, 463 U.S. 277 (1983).
Weems v. U.S., 217 U.S. 349 (1910).

Further Reading

Barnes, Robert, "Justices Uphold Lethal Injection Procedure." *Washington Post* (April 17, 2008).
Bravin, Jess, "Justices Restrict Life Terms for Youth." *Wall Street Journal* (May 18, 2010).
Cusac, Anne-Marie, *Cruel and Unusual: The Culture of Punishment in America.* New Haven, CT: Yale University Press, 2009.
Donham, Joy M., "Note: Third Strike or Merely a Foul Tip? The Gross Disproportionality of *Lockyer v. Andrade.*" *Akron Law Review* 38 (2005): 369.

Evans, Kimberly Masters, *Capital Punishment: Cruel and Unusual?* Detroit: Gale, 2008.

Frost, Natasha, *The Punitive State: Crime, Punishment, and Imprisonment across the United States.* New York: LFB Scholarly Publishing, 2006.

Jarvis, Brian, *Cruel and Unusual: Punishment and U.S. Culture.* London and Sterling, VA: Pluto Press, 2005.

McKinley, James C., Jr. "Killer with Low IQ Executed in Texas." *New York Times* (December 3, 2009).

Melusky, Joseph Anthony, *Cruel and Unusual Punishment: Rights and Liberties under the Law.* Santa Barbara, CA: ABC-CLIO, 2003.

Whitman, James Q., *Harsh Justice: Criminal Punishment and the Widening Divide between America and Europe.* New York: Oxford University Press, 2003.

CYBERCRIME

Bernadette H. Schell

According to a 2009 study conducted by the McAfee antivirus company and entitled "Unsecured Economies: Protecting Vital Information," data theft and breaches from cybercrime likely cost businesses whose networks were hacked as much as $1 trillion globally. This huge cost included both losses in intellectual property rights as well as expenditures for losses in productivity and network damage repair. These cost projections were based on the survey responses of more than 800 chief information officers in the United States, Germany, the U.K., Japan, China, India, Dubai, and Brazil. Respondents said that the breaches amounted to about $4.6 billion in losses, and the repairs were estimated to be as high as $600 million (Mills 2009).

The respondents conjectured that the recent global economic recession had increased the security risks for business and government networks, given that over 40 percent of displaced or laid-off employees were the main threat to sensitive and proprietary information found on networks. When asked which countries posed the biggest threats as state cybercriminals, there were marked differences. Over 25 percent of the overall survey respondents said that they avoided storing data on networks in China because of their likelihood of being attacked, while about 47 percent of the Chinese respondents suggested that the United States poses the biggest threat to the security of their online data (Mills 2009).

Cybercrime and Hackers Defined

The growth and spread of the Internet globally within the past 20 years has fostered the growth of a variety of online crimes as well as national cybersecurity strategies and laws aimed at curbing these unwanted behaviors. In fact, an interesting debate has developed concerning the definition of online crimes, one using the terms "cybercrime" (or "cyber crime") and "computer crimes." Typically, cybercrimes occur because an individual who uses his or her special knowledge of cyberspace for personal or financial gain,

and computer crimes typically involve a special knowledge of computer technology. Moreover, the interrelated nature of these behaviors further complicates the definition process; thus, many experts and the media seem to utilize these two terms interchangeably (Furnell 2002). The term "cybercrime" is used here to refer to any crime completed on or with a computer.

Broadly speaking, cybercrime includes such activities as electronic commerce, intellectual property rights (IPR) or copyright infringement, privacy rights infringement, and identity theft—a type of fraud. The domain of cybercrime also includes online child exploitation, credit card fraud, cyberstalking and cyberbullying, defaming or threatening other online users, gaining unauthorized access to computer networks (commonly known as "hacking"), and overriding encryption to make illegal copies of software or movies. Accepting that variations on the parameters constituting such unlawful acts, as well as the penalties associated with these criminal acts, vary from one jurisdiction to another globally, this continually evolving list of common cybercrimes is relevant and globally applicable (Schell and Martin 2006).

Some experts further suggest that cybercrimes are not all that different from traditional crimes. Whereas cybercrimes occur in an online environment, traditional crimes occur terrestrially. One of the best known cybercrime typologies classifies behavior along lines similar to those found in traditional crime typologies (Wall 2001).

Cybercrimes tend to include two common criminal acts: *trespassing* (defined as entering unlawfully into an area to commit an offence) and *theft* (defined as taking or exercising illegal control over the property of another to deprive the owner of that asset (Furnell 2002).

Individuals who break into networks to cause damage or to receive personal or financial gain are commonly referred to in the media as "hackers," but many in the computer underground insist that the more appropriate term for the mal-inclined techies wreaking havoc on networks is "cracker" or "Black Hat." Talented tech savvies paid by industry and governments to find vulnerabilities in software or networks are known in the computer underground as "White Hats" (Schell, Dodge, and Moutsatsos 2002).

As technologies evolve, so do the cybercriminal activities and labels. For example, the threat posed by a new form of cybercrime called "carding"—the illegal acquisition, sale, and exchange of sensitive online information—has increased in recent years (Holt and Lampke 2010). Those who engage in such activities are known simply as "carders."

Today, the major types of cybertrespassing and cybertheft include but are not limited by these categories (Schell and Martin 2004):

- Flooding: a form of cyberspace vandalism resulting in denial of service (DoS) to authorized users of a Web site or computer system
- Infringing intellectual property rights (IPR) and copyright: a form of cyberspace theft involving the copying of a target's copyright-protected software, movie, or other creative work without getting the owner's consent to do so

- Phreaking: a form of cyberspace theft or fraud conducted by using technology to make free telephone calls
- Spoofing: the cyberspace appropriation of an authentic user's identity by nonauthentic users, causing fraud or attempted fraud and commonly called "identify theft"
- Virus and worm production and release: a form of cyberspace vandalism causing corruption and maybe even the erasing of data

The Four Critical Elements of Traditional Crimes and Cybercrimes

According to legal expert Susan Brenner (2001), both traditional land-based crimes and cybercrimes cause *harm*—to property, to persons, or to both. Furthermore, as in the real world, in the virtual world there are politically motivated crimes, controversial crimes, and technical nonoffenses. In U.S. jurisdictions and elsewhere, traditional and cybercrimes involve four key elements:

- *Actus reus* (the prohibited act or failing to act when one is supposed to be under duty to do so)
- *Mens rea* (a culpable mental state)
- *Attendant circumstances* (the presence of certain necessary conditions)
- *Harm* (to persons, property, or both)

Perhaps an example or two will illustrate more clearly these critical elements. One of the best-known cyberstalking-in-the-making cases reported in the popular media of late involved a young man named Eric Burns (also known by his online moniker Zyklon). Burns's claim to criminal fame was that he attacked the Web pages of about 80 businesses and government offices whose pages were hosted by Laser.Net in Fairfax, Virginia.

An obviously creative individual, Burns designed a program called "Web bandit" to identify computers on the Internet that were vulnerable to attack. He then used the vulnerable systems to advertise his love for a high school classmate named Crystal. Through his computer exploits, Burns was able to advertise worldwide his unrelenting love for Crystal in the hope that if he could get her attention, he could have her longer-term. Unfortunately, the case did not end on a happy note for Burns. After he was caught and convicted by U.S. authorities, the 19-year-old pleaded guilty to defacing Web pages for NATO and Vice President Al Gore. In November 1999, the judge hearing the case ruled that Burns should serve 15 months in U.S. federal prison for his illegal exploits, pay more than $36,000 in restitution, and not be allowed to touch a computer for 3 years after his supervised prison release. Ironically, Crystal attended the same high school as Burns but hardly knew him. In the end, she helped the authorities capture him (U.S. Department of Justice 1999).

Citing the four elements of cybercrimes, cyberperpetrator Burns gained entry into computers and unlawfully took control of the property—the Web pages owned by

NATO and Vice President Al Gore. Burns entered with the intent of depriving the lawful owner of error-free Web pages (*mens rea*). By society's norms, Burns had no legal right to alter the Web pages by advertising his love for Crystal; he was not authorized to do so by the rightful owners (*attendant circumstances*). Consequently, Burns was liable for his unlawful acts, for he illegally entered the computer networks (i.e., criminal trespass) to commit an offense once access was gained (i.e., data alteration). As the targeted users realized that *harm* was caused to their property, the judge hearing the evidence ruled that Burns should be sent to prison for his criminal actions as well as pay restitution.

In recent times, there have also been some alleged cybercrimes involving harm or death to Internet-connected persons. For example, in late May 2010, a U.S. judge ordered a former Minnesota nurse facing charges in the suicides of two individuals to keep off the Internet until the cybercriminal case is heard and resolved. William Melchert-Dinkel, aged 47, appeared in a Minnesota court on "assisted suicide" charges. The father of two children is accused of coaxing Nadia Kajouji, an 18-year-old Canadian student, and Mark Dryborough, a 32-year-old British man, to commit suicide. Police allege that Melchert-Dinkel met both in online suicide chat rooms. According to court documents, this alleged cybercriminal had made online suicide pacts with about 10 or 11 individuals all over the world—indicating that, unlike most land crimes, the Internet has no geographical boundaries. Apparently Melchert-Dinkel would go into chat rooms using the monikers "carni," "Li Dao," or "falcon.girl," introducing himself as a female nurse. He seemed to use his medical knowledge to offer advice on suicide methods to online users seeking such. The charges are believed to represent the first time that assisted suicide laws—commonly used in mercy killing cases—have been applied to the virtual world. The teenaged victim in this bizarre case was studying at a university when she drowned herself two years ago, apparently on the advice of Melchert-Dinkel (Doolittle 2010).

The Changing Virtual Landscape and Presenting Challenges

There is little question that the virtual landscape has changed considerably just in the last 10 years, for in North America and globally, more people have become connected to the Internet, largely because of increasing affordability. Using Canada as one case in point, according to Statistics Canada, in 2009, some 80 percent of Canadians aged 16 and over used the Internet for personal reasons—a figure that shows an increase in usage by 7 percent since 2007 (the last time the survey was conducted). In short, almost 22 million Canadians aged 16 or over are active in the virtual world. Affordability, however, remains a key factor. Although there is a 94 percent Internet usage in Canadian households when income levels exceed $85,000 a year, there is only a 56 percent Internet usage in households where the income is less than $30,000 a year. Developing economies as well as developed economies see the economic sustainability importance of having citizens Internet-connected. According to a 2009 Internet World Stats study, China is, in fact, the number 1 most online-connected location worldwide (El Akkad 2010).

In fact, the virtual world is becoming so crowded on a nationwide basis that the Internet as we know it today seems to be reaching its limits. Some experts have estimated that quite soon—and likely before 2012—the number of new devices able to connect to the World Wide Web will plummet as the world exhausts its IP addresses—unique codes providing access to the Internet. Part of the problem is that the Internet was built around the Internet Protocol Addressing Scheme version 4 (IPv4), having about 4 billion addresses and now running low. Back in the 1970s, when the Internet was just becoming popular, 4 billion addresses probably seemed like plenty. Internet Protocol Addressing Scheme version 6 (IPv6) is on its way in, having trillions more addresses available and ready for the taking. The problem, say the experts, is that businesses and governments are slow in adapting their technology to IPv6. Thus there is the fear that there could be a major online crunch before 2012 (Kesterton 2010).

As more and more citizens become Internet-connected, new opportunities for communicating and exchanging information with others online come into existence, such as the development and growth of popular social networks like Facebook. However, accompanying the positive evolution of Internet usages is the dark side, whereby tech-savvy criminals continually search for new ways to cause harm to property and to persons in the virtual world.

Faced with stricter Internet security measures worldwide, some mal-inclined spammers, for example—marketers conning online users to buy their products or services after deriving mailing lists from many online sources, including scanning Usenet discussion groups—have now begun to borrow pages from corporate America's economic sustainability rule books: They, too, are outsourcing. Sophisticated spammers are now paying tech-savvy folks in India, Bangladesh, China, and other developing nations to overcome tests know as "captchas," which ask Internet users to type in a string of somewhat obscured characters to prove that they are human beings and not spam-generating robots. ("Captchas," pioneered by Luis von Ahn, a computer science professor at Carnegie Mellon, is an acronym for "completely automated public Turing test to tell computers and humans apart.")

The current charge-out rate for the borrowed talent ranges from about 80 cents to $1.20 for each 1,000 deciphered boxes, based on estimates provided by online exchanges like Freelancer.com, where many such projects are bid on weekly. Where jobs are scarce, becoming involved in such a money-making proposition provides a way for some hungry online citizens to avoid starving to death. Professor von Ahn says that the cost of hiring people, even as cheaply as it may appear, should limit the extent of such operations, since only profitable spammers who have already determined various ways to make money through devious online techniques can afford such operations. Some of these outsourced operations appear to be fairly sophisticated, involving brokers and middlemen. Large enterprises, such as Google, that utilize captchas technogy argue that paying people to solve captchas proves that the tool is working, at least in part, as an effective anticybercrime measure (Bajaj 2010).

There is little question that, globally, cybercrime in recent years has become more "organized," often involving underground gangs and Mafia-like hierarchies hiring needed talent to get the cybercrime job done and keep the coffers flush with cash. Since 2002, botnets, in particular, are recognized as a growing problem. A "bot," short form for "robot," is a remote-controlled software program acting as an agent for a user (Schell and Martin 2006). The reason that botnets are anxiety-producing to organizations and governments, alike is that mal-inclined bots can download malicious binary codes intended to compromise the host machine by turning it into a "zombie." A collection of zombies is called a "botnet." Although botnets have been used for spamming and other nefarious online activities, the present-day threat is that if several botnets form a gang, they could threaten—if not cripple—the networked critical infrastructures of most countries with a series of coordinated distributed denial of service (DDoS) attacks, bringing nations' economies to a standstill (Sockel and Falk 2009).

Botnets have been crafted by individuals not intentionally out to cause harm to property or persons but who are later co-opted into gangs with alternative motives. Sometimes the creators of the botnets are later blamed for the damages caused.

For example, in a New Zealand hearing held on July 15, 2008, Justice Judith Potter discharged without conviction Owen Walker, a teenage hacker involved in an international hacking group known as "the A-Team" (Farrell 2007). Walker was alleged to have been engaged in some of the most sophisticated botnet cybercrime ever seen in New Zealand. Even though Walker pleaded guilty to six charges during his trial—including accessing a computer for dishonest purposes and damaging or interfering with a computer system—he walked away from the courthouse without going to jail. Walker was part of an international ring of 21 hackers, and his exploits apparently cost the local New Zealand economy about $20.4 million in U.S. dollars. Had he been convicted, the teen could have spent up to seven years in prison.

In his defense, Walker said that he was motivated to create bots not by maliciousness but by his intense interest in computers and his need to stretch their capabilities—the line often cited by White Hat hackers as justification for their exploits (Gleeson 2008). The judge ordered Walker to pay $11,000 in costs and damages, although the botnet creator said that he did not receive any of the approximately $32,000 "stolen" resulting the course of the cybercrime in question (Humphries 2008).

Measures Governments Worldwide Have Enacted to Curb Cybercrime

Clearly, the continually evolving nature of cybercrime has caused considerable consternation for governments globally. It is tough for governments and their authorities to stay ahead of the cybercriminal curve because the curve keeps changing. Moreover, there is a widespread belief that if cybercriminals are to be stopped in their tracks and dealt with by the global justice system, countries must work together to stop this online "problem," which knows no boundaries. Simply stated, as the nature of cybercrime has evolved from

single-person exploits to international cybergangs and Mafia-like structures, the need for more effective legal structures to effectively prosecute and punish those engaged in such costly behaviors has also increased exponentially.

In the United States in particular, most newsworthy cybercrime cases have been prosecuted under the computer crime statute 18 U.S.C. subsection 1030. This primary U.S. federal statute criminalizing cracking was originally called the Computer Fraud and Abuse Act (CFAA), modified in 1996 by the National Information Infrastructure Protection Act and codified at 18 U.S.C. subsection 1030, Fraud and Related Activity in Connection with Computers. If caught in the United States, crackers are often charged with intentionally causing damage without authorization to a protected computer. A first offender typically faces up to five years in prison and fines up to $250,000 per count, or twice the loss suffered by the targets. The U.S. federal sentencing guidelines for cracking have been expanded in recent years to provide longer sentences if exploits lead to the injury or death of online citizens—such as the recent case involving allegations against American William Melchert-Dinkel. In the United States, targets of cybercrimes can also seek civil penalties (Evans and McKenna 2000).

After the September 11, 2001, terrorist attacks on the World Trade Center and the Pentagon, the U.S. government became increasingly concerned about terrorist attacks of various natures and increased homeland security protections. To this end, the U.S. Congress passed a series of laws aimed at halting computer criminals, including the 2002 Homeland Security Act, with section 225 known as the Cyber Security Enhancement Act of 2002. In 2003, the Prosecutorial Remedies and Tools against the Exploitation of Children Today Act (PROTECT Act) was passed to assist law enforcement in their efforts to track and identify cybercriminals using the Internet for child exploitation purposes. Also in 2003, the Can Spam Act was passed, aimed at decreasing the harm issues raised by online spammers.

President Barack Obama has identified cybersecurity as one of the most serious economic and national security challenges facing the United States today—a challenge that he affirmed the United States was not adequately prepared to counter effectively. Shortly after taking office, Obama ordered a complete review of federal efforts to defend the U.S. information and communication online infrastructure and the development of a more comprehensive approach for securing the information highway.

In May 2009, Obama accepted the recommendations of the Cyberspace Policy Review to select an executive branch cybersecurity coordinator who would have regular access to the president and to invest hugely into cutting-edge research-and-development efforts to meet the present-day digital challenges. The president also wanted to build on the Comprehensive National Cyber Security Initiative (CNCI) launched by President George W. Bush in the National Security Presidential Directive of January, 2008. President Obama has also called on other nations to develop similar comprehensive national cybersecurity

policies and action plans as a means of securing cyberspace for online citizens worldwide (U.S. National Security Council 2010).

Other countries have followed the U.S. lead and cries for virtual world interventions. For example, on May 28, 2010, the Canadian government announced its National Strategy and Action Plan to Strengthen the Protection of Critical Infrastructure (Public Safety Canada 2010). Other countries have also enacted anti-intrusion legislation similar to the crime statute 18 U.S.C. subsection 1030 enacted in the United States. For example, section 342.1 of the Canadian Criminal Code is aimed at a number of potential harms, including theft of computer services, invasion of online users' privacy, trading in computer passwords, and cracking encryption systems. Moreover, breaking the digital encryption on a movie DVD—even if copying it for personal use—would in the near future make individual Canadians liable for legal damages up to $5,000 if a tougher copyright law proposed by the present Canadian federal government is enacted in 2010 (Chase 2010).

Finally, it must be emphasized that although the battle to keep cybercriminals at bay is a problem that will continue into the future, countries worldwide are committed to putting sizable resources into meeting the challenge. The Global Cyber Law Survey of 50 countries recently found that 70 percent of these had legislation against unauthorized computer access as well as against data tampering, sabotage, malware or malicious software usage, and fraud.

See also **Identity Theft; Advertising and the Invasion of Privacy (vol. 1); Internet (vol. 4); Surveillance—Technological (vol. 4)**

Further Reading

Bajaj, Vikas, "Spammers Pay Others to Answer Security Tests." *New York Times* (April 25, 2010).

Brenner, Susan W., *Cybercrime: Criminal Threats from Cyberspace.* Santa Barbara, CA: Praeger, 2010.

Chase, S., "New Bill Cracks Down On Copyright Pirates." *Globe and Mail* (June 3, 2010): A4.

Doolittle, R., "Internet Ban for Man Accused in Teen Suicide." *Toronto Star* (May 26, 2010): GT2.

El Akkad, O., "Communications: Canadian Internet Usage Grows." *Globe and Mail* (May 11, 2010): B9.

Evans, M., and B. McKenna,"Dragnet Targets Internet Vandals." *Globe and Mail* (February 10, 2000): A1, A10.

Farrell, N., "Hacker Mastermind Has Asperger Syndrome." *New Zealand Herald* (December 3, 2007). http://www.theinquirer.net/inquirer/news/1038901/hacker-mastermind-asperger-syndrome

Furnell, S., *Cybercrime: Vandalizing the Information Society.* Boston, MA: Addison Wesley, 2002.

Gleeson, Sheenagh, "Freed Hacker Could Work for Police." *New Zealand Herald* (July 16, 2008). http://www.nzherald.co.nz/nz/news/article.cfm?c_id = 1&objectid = 10521796/

Holt, T. J., and E. Lampke,"Exploring Stolen Data Markets On-Line: Products and Market Forces." *Criminal Justice Studies* 33, no. 2 (2010).

Humphries, M., "Teen Hacker Owen Walker Won't Be Convicted." July 17, 2008. http://www.geek.com/articles/news/teen-hacker-owen-walker-wont-be-convicted-20080717

Kesterton, M., "Social Studies: A Daily Miscellany of Information." *Globe and Mail* (May 31, 2010): L6.

McQuade, Samuel C., III, ed., *Encyclopedia of Cybercrime.* Westport, CT: Greenwood Press, 2009.

Mills, Elinor, "Study: Cybercrime Cost Firms $1 Trillion Globally." January 28, 2009. http://news.cnet.com/8301–1009_3–10152246–83.html

Public Safety Canada, "Ministers Announce National Strategy and Action Plan to Strengthen the Protection of Critical Infrastructure." May 28, 2010. http://www.publicsafety.gc.ca/media/nr/2010/nr20100528-eng.aspx?rss = true

Schell, B. H., J. L. Dodge, and S. S. Moutsatsos, *The Hacking of America: Who's Doing It, Why, and How.* Westport, CT: Quorum Books, 2002.

Schell, B. H., and C. Martin, *Webster's New World Hacker Dictionary.* Indianapolis, IN: Wiley, 2006.

Schell, B. H., and C. Martin, *Cybercrime.* Santa Barbara, CA: ABC-CLIO, 2004.

Sockel, H., and L. K. Falk, "Online Privacy, Vulnerabilities, and Threats: A Manager's Perspective." In *Online Consumer Protection: Theories of Human Relativism,* ed. K. Chen and A. Fadlalla. Hershey, PA: Information Science Reference, 2009.

U.S. Department of Justice, "'Web Bandit' Hacker Sentenced to 15 Months Imprisonment, 3 Years of Supervised Release, for Hacking USIA, NATO, Web Sites." November 19, 1999. http://www.justice.gov/criminal/cybercrime/burns.htm

U.S. National Security Council, The Comprehensive National Cyber Security Initiative. 2010. http://www.whitehouse.gov/cybersecurity/comprehensive-national-cybersecurity-initiative

D

DEATH PENALTY

Robert M. Bohm

Few issues in criminal justice are as controversial as the death penalty. For most people who support the death penalty, the execution of killers (and people who commit other horrible acts) makes sense. Death penalty supporters frequently state that executions do prevent those executed from committing heinous crimes again and that the example of executions probably prevents most people who might contemplate committing appalling crimes from doing so. In addition, many death penalty supporters simply believe that people who commit such crimes deserve to die—that they have earned their ignominious fate.

For opponents, the death penalty issue is about something else entirely. For many opponents, the level of death penalty support in the United States is a rough estimate of the level of maturity of the American people. The not-so-subtle implication is that a mature, civilized society would not employ the death penalty. Opponents maintain that perpetrators of horrible crimes can be dealt with effectively by other means and that it makes little sense to kill some people, however blameworthy they may be, to teach other people not to kill. These opponents argue that although the perpetrators of terrible crimes may deserve severe punishment, that punishment need not be execution. This entry provides a brief history of the penalty's development in the United States.

Background

The first person executed in what is now the United States was Capt. George Kendall, a councilor for the Virginia colony. He was executed in 1608 for being a spy for Spain. The

fact that he was executed was not particularly unusual, because the death penalty was just another one of the punishments brought to the New World by the early European settlers.

Since Kendall's execution in 1608, more than 19,000 executions have been performed in what is now the United States under civil (as opposed to military) authority. This estimate does not include the approximately 10,000 people lynched in the 19th century. Nearly all of the people executed during the past four centuries in what is now the United States have been adult men; only about 3 percent have been women. Ninety percent of the women were executed under local as opposed to state authority, and the majority (87 percent) were executed prior to 1866. About 2 percent of the people executed have been juveniles—that is, individuals who committed their capital crimes prior to their 18th birthdays. Most of them (69 percent) were black and nearly 90 percent of their victims were white.

Key Events

It is important to understand that all of the significant changes in the practice of capital punishment in the United States—culminating in its complete abolition in some jurisdictions—are the result of abolitionist efforts. Those efforts created (1) degrees of murder, which distinguish between murders heinous enough to warrant death and those murders that do not; (2) a reduction in the number of offenses warranting the death penalty (except for the federal government and some states since 1994); (3) the hiding of executions from public view; and (4) a decreased number of annual executions. Although abolition of the death penalty has been their unremitting goal, abolitionists have been far more successful in reforming its practice.

Degrees of Murder

Because of the efforts of Pennsylvania Attorney General and later U.S. Attorney General William Bradford and Philadelphia physician and signer of the Declaration of Independence Benjamin Rush, both early death penalty abolitionists, Pennsylvania became the first state in legal proceedings to consider degrees of murder based on culpability. Before this change, the death penalty was mandated for anyone convicted of murder (and many other crimes) regardless of circumstance. Neither Bradford nor Rush believed that capital punishment deterred crime, citing the example of horse stealing, which at the time was a capital offense in Virginia and the most frequently committed crime in the state. Because of the severity of the penalty, convictions for the crime were hard to obtain.

Limiting Death-Eligible Crimes

Pressure from abolitionists also caused Pennsylvania in 1794 to repeal the death penalty for all crimes except first-degree murder. Between 1794 and 1798, Virginia and Kentucky joined Pennsylvania in abolishing the death penalty for all crimes except first-degree

murder; New York and New Jersey abolished the penalty for all crimes except murder and treason. Virginia and Kentucky, both slave states, confined the reforms to free people; slaves in those states were still subject to a long list of capital crimes. When New Jersey, Virginia, and Kentucky severely restricted the scope of capital punishment, they also appropriated funds for the construction of their first prisons; Pennsylvania and New York had established prisons earlier. Still, a half-century would pass before the first state abandoned capital punishment entirely.

Hiding Executions from the Public

Between 1800 and 1850, U.S. death penalty abolitionists helped change public sentiment about public executions, especially among many northern social elites. In 1800, public hangings were mostly solemn events regularly attended by members of all social classes and touted as having important educational value. But by midcentury, members of the upper classes were staying away from them because in their minds they had become tasteless, shocking, rowdy, sometimes dangerous, carnival-like spectacles. This view, however, may have been more a matter of perception than reality, as eyewitness accounts suggest that decorum at public executions had not changed that much. In any event, the elite began to view those who attended executions as contemptible rabble out for a good time and concluded that any educational value public hangings once had was being lost on the less respectable crowd.

Another problem with public hangings during this period was that attendees were increasingly sympathizing with the condemned prisoners, weakening the position of the state. Indeed, some of those who met their fate on the gallows became folk heroes. Increasing acceptance of the belief that public executions were counterproductive because of the violence they caused was yet another change. Stories were circulated about the violent crimes being committed just before or after a pubic hanging by attendees of the event.

For these reasons, Connecticut, in 1830, became the first state to ban public executions. Pennsylvania became the second state to do so in 1834. In both states, only a few authorized officials and the relatives of the condemned were allowed to attend. By 1836, New York, New Jersey, Massachusetts, Rhode Island, and New Hampshire had enacted similar policies. By 1860, all northern states and Delaware and Georgia in the South had shifted the site of executions from the public square to an enclosed jail yard controlled by the sheriff and deputies. By 1890, some states had moved executions to inside the jail or a prison building. The last public execution was held in Galena, Missouri, in 1937.

From Mandatory to Discretionary Capital Punishment Statutes

In 1837, Tennessee became the first state to enact a discretionary death penalty statute for murder; Alabama did the same four years later, followed by Louisiana five years after that. All states before then employed mandatory death penalty statutes that required

anyone convicted of a designated capital crime to be sentenced to death. The reason for the change, at least at first and in the South, undoubtedly was to allow all-white juries to take race into account in deciding whether death was the appropriate penalty in a particular case. Between the Civil War and the end of the 19th century, at least 20 additional jurisdictions changed their death penalty laws from mandatory to discretionary ones. Illinois was the first northern state to do so in 1867; New York was the last state to make the change in 1963. The reason most northern states switched from mandatory to discretionary death penalty statutes, and another reason for southern states to do so, was to prevent jury nullification, which was becoming an increasing problem. "Jury nullification" refers to a jury's knowing and deliberate refusal to apply the law because, in the given case, a mandatory death sentence was considered contrary to the jury's sense of justice, morality, or fairness.

From Local to State-Authorized Executions

A major change took place in the legal jurisdiction of executions during the time of the Civil War. Before the war, all executions were conducted locally—generally in the jurisdiction in which the crime was committed. But on January 20, 1864, Sandy Kavanagh was executed at the Vermont State Prison. He was the first person executed under state as opposed to local authority. This shift in jurisdiction was not immediately adopted by other states. After Kavanagh, there were only about two state- or federally authorized executions per year well into the 1890s; the rest were locally authorized. That pattern would shift dramatically during the next 30 years. In the 1890s, about 90 percent of executions were imposed under local authority, but by the 1920s, about 90 percent were imposed under state authority. Today, all executions except those conducted in Delaware and Montana and by the federal government and the military are imposed under state authority.

States Abolish the Death Penalty

In 1846, the state of Michigan abolished the death penalty for all crimes except treason and replaced it with life imprisonment. The law took effect the next year, making Michigan, for all intents and purposes, the first English-speaking jurisdiction in the world to abolish capital punishment. The first state to outlaw the death penalty for all crimes, including treason, was Rhode Island in 1852; Wisconsin was the second state to do so a year later. Not until well after the Civil War did Iowa (in 1872) and Maine (in 1876) become the next states to abolish the death penalty. Legislatures in both states reversed themselves, however, and reinstated the death penalty in 1878 in Iowa and in 1883 in Maine. Maine reversed itself again in 1887 and abolished capital punishment and, to date, has not reinstated it. Colorado abandoned capital punishment in 1897 but restored it in 1901.

During the first two decades of the 20th century, six states outlawed capital punishment entirely (Kansas, 1907; Minnesota, 1911; Washington, 1913; Oregon, 1914; South

Dakota, 1915; Missouri, 1917) and three states (Tennessee, 1915; North Dakota, 1915; Arizona, 1916) limited the death penalty to only a few rarely committed crimes, such as treason or the first-degree murder of a law enforcement official or prison employee. Tennessee also retained capital punishment for rape. In addition, 17 other states nearly

CHALLENGING THE LEGALITY OF CAPITAL PUNISHMENT

Although specific methods of execution had been legally challenged as early as 1890 and procedural issues earlier than that, the fundamental legality of capital punishment itself was not subject to challenge until the 1960s. It had long been argued that the U.S. Constitution—or, more specifically, the Fifth Amendment—authorized capital punishment and that a majority of the Framers did not object to it. Given such evidence, it made little sense to argue that capital punishment violated the Constitution. That conventional wisdom was challenged in 1961. In an article published in the *University of Southern California Law Review,* Los Angeles lawyer Gerald Gottlieb, an affiliate of the local American Civil Liberties Union (ACLU) branch, suggested that "the death penalty was unconstitutional under the Eighth Amendment because it violated contemporary moral standards, what the U.S. Supreme Court in *Trop v. Dulles* (1958) referred to as 'the evolving standards of decency that mark the progress of a maturing society.'" The key question raised by Gottlieb's interpretation, of course, was whether the United States, in fact, had evolved or progressed to the point at which standards of decency no longer permitted capital punishment. For a small group of abolitionist lawyers with the National Association for the Advancement of Colored People (NAACP) Legal Defense and Educational Fund (LDF), the answer was yes.

LDF lawyers turned their attention to the death penalty in the 1960s primarily because of the racially discriminatory way it was being administered. Later, however, when they began accepting clients actually facing execution, they realized that they had to raise issues having nothing to do with race. With this change in focus, there was no longer any reason not to take on the cases of white death row inmates too, so they did. In attempting to achieve judicial abolition of the penalty, LDF lawyers plotted a general strategy to convince the Supreme Court that the death penalty was employed in a discriminatory way against minorities and to otherwise block all executions by challenging the legal procedures employed in capital cases (the so-called moratorium strategy). If successful, their plan would accomplish three goals: First, it would make those who were still executed appear to be unlucky losers in a death penalty lottery. Second, if the death penalty were used only rarely, it would show that the penalty was not really needed for society's protection. Third, if all executions were blocked, the resulting logjam of death row inmates would lead to an inevitable bloodbath if states ever began emptying their death rows by executing prisoners en masse. The LDF lawyers did not believe the country could stomach the gore and would demand abolition of the penalty.

The LDF's moratorium strategy worked. In 1968, executions in the United States were unofficially suspended until some of the more problematic issues with the death penalty could be resolved. The moratorium on executions would last 10 years, until 1977, when Gary Gilmore asked to be executed by the state of Utah.

abolished the death penalty or at least seriously considered abolition, some of them several times. The momentum, however, failed to last. By 1920, five of the states that had abolished the death penalty earlier had reinstated it (Arizona, 1918; Missouri, 1919; Tennessee, 1919; Washington, 1919; Oregon, 1920). No state abolished the death penalty between 1918 and 1957. In contrast, after World War II, most of the advanced western European countries abolished the death penalty or severely restricted its use.

Legal Decisions by the U.S. Supreme Court

Furman v. Georgia

On January 17, 1972, Furman's lawyers argued to the Supreme Court that unfettered jury discretion in imposing death for murder resulted in arbitrary or capricious sentencing in violation of their client's Fourteenth Amendment right to due process and his Eighth Amendment right not to be subjected to cruel and unusual punishment. Furman's challenge proved successful and, on June 29, 1972, the U.S. Supreme Court set aside death sentences for the first time in its history. In its decision in *Furman v. Georgia, Jackson v. Georgia,* and *Branch v. Texas* (all three cases were consolidated and are referred to here as the *Furman* decision), the Court held that the capital punishment statutes in the three cases were unconstitutional because they gave the jury complete discretion to decide whether to impose the death penalty or a lesser punishment in capital cases. The majority of five justices pointed out that the death penalty had been imposed arbitrarily, infrequently, and often selectively against minorities. A practical effect of *Furman* was the Supreme Court's voiding of 40 death penalty statutes and the sentences of more than 600 death row inmates in 32 states. Depending on the state, the death row inmates received new sentences of life imprisonment, a term of years, or, in a few cases, new trials.

It is important to note that the Court did not declare the death penalty itself unconstitutional. It held as unconstitutional only the statutes under which the death penalty was then being administered. The Court implied that if the process of applying the death penalty could be changed to eliminate the problems cited in *Furman,* then it would pass constitutional muster.

The backlash against *Furman* was immediate and widespread. Many people, including those who had never given the death penalty issue much thought, were incensed at what they perceived as the Supreme Court's arrogance in ignoring the will of the majority and its elected representatives. They clamored to have the penalty restored. Obliging their constituents, the elected representatives of 36 states proceeded to adopt new death penalty statutes designed to meet the Court's objections. The new death penalty laws took two forms. Twenty-two states removed all discretion from the process by mandating capital punishment upon conviction for certain crimes (mandatory death penalty statutes). Other states provided specific guidelines that judges and juries were to use in deciding if death were the appropriate sentence in a particular case (guided discretion death penalty statutes).

Woodson v. North Carolina and Gregg v. Georgia

The constitutionality of the new death penalty statutes was quickly challenged, and on July 2, 1976, the Supreme Court announced its rulings in five test cases. In *Woodson v. North Carolina* and *Roberts v. Louisiana,* the Court voted 4–5 to reject mandatory statutes that automatically imposed death sentences for defined capital crimes. Justice Potter Stewart provided the Court's rationale. First, Stewart admitted that "it is capricious to treat similar things differently" and that mandatory death penalty statutes eliminated that problem. He added, however, that it also "is capricious to treat two different things the same way." Therefore, to impose the same penalty on all convicted murderers, even though all defendants are different, is just as capricious as imposing a penalty randomly. To alleviate the problem, then, some sentencing guidelines were necessary. Thus, in *Gregg v. Georgia, Jurek v. Texas,* and *Proffitt v. Florida* (hereafter referred to as the *Gregg* decision), the Court voted 7–2 to approve guided discretion statutes that set standards for juries and judges to use in deciding whether to impose the death penalty. The Court's majority concluded that the guided discretion statutes struck a reasonable balance between giving the jury some direction and allowing it to consider the defendant's background and character and the circumstances of the crime.

It is noteworthy that the Court approved the guided discretion statutes on faith, assuming that the new statutes and their procedural reforms would rid the death penalty's administration of the problems cited in *Furman.* Because guided discretion statutes, automatic appellate review, and proportionality review had never been required or employed before in death penalty cases, the Court could not have known whether they would make a difference. Now, more than 30 years later, it is possible to evaluate the results. A large body of evidence indicates that the reforms have had negligible effects.

Coker v. Georgia and Eberheart v. Georgia

The Supreme Court has repeatedly emphasized that the death penalty should be reserved for the most heinous crimes. In two cases decided in 1977, the Court, for all intents and purposes, limited the death penalty to aggravated or capital murders only. Aggravated or capital murders are murders committed with an aggravating circumstance or circumstances. Aggravating circumstances (or factors) or special circumstances, as they are called in some jurisdictions, refer "to the particularly serious features of a case, for example, evidence of extensive premeditation and planning by the defendant, or torture of the victim by the defendant." At least one aggravating circumstance must be proven beyond a reasonable doubt before a death sentence can be imposed. (To date, all post-*Furman* executions have been for aggravated murder.) The Court ruled in *Coker v. Georgia* that the death penalty is not warranted for the crime of rape of an adult woman in cases in which the victim is not killed. Likewise, in *Eberheart v. Georgia,* the Court held that the death penalty is not warranted for the crime of kidnapping in cases in

which the victim is not killed. Traditionally, both rape and kidnapping have been capital crimes regardless of whether the victim died.

Lockett v. Ohio and Bell v. Ohio

One of the changes to death penalty statutes approved by the Court in *Gregg* was the requirement that sentencing authorities (either juries or judges) consider mitigating circumstances before determining the sentence. Mitigating circumstances (or factors), or extenuating circumstances, refer "to features of a case that explain or particularly justify the defendant's behavior, even though they do not provide a defense to the crime of murder" (e.g., youth, immaturity, or being under the influence of another person). The requirement that mitigating circumstances must be considered has been the subject of several challenges. The first test was in 1978 in the cases of *Lockett v. Ohio* and *Bell v. Ohio.* In those cases, one of the issues was whether defense attorneys could present only mitigating circumstances that were listed in the death penalty statute. The Court held that trial courts must consider any mitigating circumstances that a defense attorney presents, not just those listed in the statute. The only qualification to this requirement is that the mitigating circumstance must be supported by evidence.

Pulley v. Harris

In *Pulley v. Harris* (1984), the Court decided that there was no constitutional obligation for state appellate courts to provide, upon request, proportionality review of death sentences. Since *Pulley,* many states have eliminated the proportionality review requirement from their statutes, whereas other states simply no longer conduct the reviews.

Lockhart v. McCree

In *Lockhart v. McCree* (1986), the Court ruled that prospective jurors whose opposition to the death penalty is so strong that it would prevent or substantially impair the performance of their duties as jurors at the sentencing phase of the trial may be removed for cause. Stated differently, as long as jurors can perform their duties as required by law, they may not be removed for cause because they are generally opposed to the death penalty. To date, *Lockhart v. McCree* is the latest modification to the Court's earlier *Witherspoon* decision. In *Witherspoon v. Illinois* (1968), the Court rejected the common practice of excusing prospective jurors simply because they were opposed to capital punishment. The Court held that prospective jurors could be excused only for cause. That is, jurors could be excused only if they would automatically vote against imposition of the death penalty, regardless of the evidence presented at trial, or if their attitudes toward capital punishment prevented them from making an impartial decision on the defendant's guilt.

McCleskey v. Kemp

The most sweeping challenge to the constitutionality of the new death penalty statutes was *McCleskey v. Kemp* (1987), wherein the Court considered evidence of racial

discrimination in the application of Georgia's death penalty statute. Recall that in the *Furman* decision, racial discrimination was cited as one of the problems with the pre-*Furman* statutes. The most compelling evidence was the results of an elaborate statistical analysis of post-*Furman* death penalty cases in Georgia. That analysis showed that Georgia's new statute produced a pattern of racial discrimination based on both the race of the offender and the race of the victim. In *McCleskey,* the Court opined that evidence such as the statistical analysis—which showed a pattern of racial discrimination—is not enough to render the death penalty unconstitutional. By a vote of five to four, it held that state death penalty statutes are constitutional even when statistics indicate they have been applied in racially biased ways. The Court ruled that racial discrimination must be shown in individual cases—something McCleskey did not show in his case. For death penalty opponents, the *McCleskey* case represented the best, and perhaps last, chance of having the Supreme Court again declare the death penalty unconstitutional.

Atkins v. Virginia

In *Atkins v. Virginia* (2002), the Court ruled that it is cruel and unusual punishment to execute the mentally retarded. A problem with the *Atkins* decision is that the Court did not set a standard for what constitutes mental retardation. That issue was left to the states to decide. Texas became the first to test the law when it pursued, successfully, the execution (in 2009) of Bobby Wayne Woods, a convicted murderer, who had an IQ of between 68 and 86.

Roper v. Simmons

In *Roper v. Simmons* (2005), the Court held that the Eighth and Fourteenth Amendments forbid the imposition of the death penalty on offenders who were under the age of 18 at the time their crimes were committed.

Baze v. Rees

In this case (2008) the Court ruled that execution by lethal injection did not constitute "cruel and unusual punishment" and therefore was acceptable under the U.S. Constitution.

Conclusion

Globally, the death penalty is trending toward abolition. As of this writing, more than half of the countries in the world—104 of them—have abolished the death penalty in law or practice. All of the major U.S. allies except Japan have abolished the death penalty. On the other hand, only 58 countries and territories have retained the death penalty and continue to apply it; 35 other countries retain it on paper but have not applied it in a decade or more.

In the United States, 14 jurisdictions do not have a death penalty, and among the 39 jurisdictions that do have one, only a handful use it more than occasionally and almost

all of them are located geographically in the South. More than 70 percent of all post-*Furman* executions have occurred in the South. Still, executions are more concentrated than the 70 percent figure suggests. Five states—Texas, Virginia, Oklahoma, Missouri, and Florida—account for 65 percent of all post-*Furman* executions; three states—Texas, Virginia, and Oklahoma—account for 53 percent of them; Texas and Virginia account for 45 percent of them; and Texas alone accounts for 36 percent of them. Thus the death penalty today is a criminal sanction that is used more than occasionally in only a few nonwestern countries, a few states in the U.S. South, and two U.S. border states. This is an important point because it raises the question of why those death penalty—or more precisely, executing—jurisdictions in the world need the death penalty, whereas all other jurisdictions in the world—the vast majority—do not.

In the states noted previously, the death penalty has proved stubbornly resilient and will probably remain a legal sanction for the foreseeable future. One reason is that death penalty support among the U.S. public, at least according to the major opinion polls, remains relatively strong. According to a 2009 Gallup poll, for example, 65 percent of adult Americans favored the death penalty for persons convicted of murder, 31 percent opposed it, and 5 percent did not know or refused to respond (Gallup 2010). It is unlikely that the practice of capital punishment could be sustained if a majority of U.S. citizens were to oppose it. However, in no year for which polls are available has a majority of Americans opposed the death penalty (the first national death penalty opinion poll was conducted in December 1936).

The abiding faith of death penalty proponents in the ability of legislatures and courts to fix any problems with the administration of capital punishment is another reason for its continued use in some places. However, the three-decade record of fine-tuning the death penalty process remains ongoing. Legislatures and courts are having a difficult time "getting it right," despite spending inordinate amounts of their resources trying.

Many people support capital punishment even though they are ignorant of the subject. It is assumed by abolitionists that if people were educated about capital punishment, most would oppose it. Unfortunately, research suggests that educating the public about the death penalty may not have the effect the abolitionists desire. Although information about the death penalty can reduce support for the sanction—sometimes significantly—rarely is the support reduced to less than a majority, and the reduction in support may be only temporary.

Two major factors seem to sustain death penalty support in the United States: (1) the desire for vindictive revenge and (2) the symbolic value it has for politicians and law enforcement officials. According to Gallup, 50 percent of all respondents who favored the death penalty provided retributive reasons for their support: 37 percent replied "An eye for an eye/They took a life/Fits the crime," and another 13 percent volunteered "They deserve it." The reasons offered by the next largest group of death penalty proponents (by only 11 percent each) were "Save taxpayers money/

Cost associated with prison" and "Deterrent for potential crimes/Set an example." No other reasons were given by more than 10 percent of the death penalty proponents (Gallup 2010).

The choice of "An eye for an eye" has been called *vindictive revenge* because of its strong emotional component. Research shows that the public supports the death penalty primarily for vindictive revenge. Those who responded "An eye for any eye" want to repay the offender in kind for what he or she has done. Research also shows that people who support the death penalty for vindictive revenge are generally resistant to reasoned persuasion. That is, they are less likely to change their position on the death penalty when confronted with compelling evidence that contradicts their beliefs.

Politicians continue to use support for the death penalty as a symbol of their toughness on crime. Politicians who oppose capital punishment are invariably considered soft on crime. Criminal justice officials and much of the public often equate support for capital punishment with support for law enforcement in general. It is ironic that although capital punishment has virtually no effect on crime, the death penalty continues to be a favored political silver bullet—a simplistic solution to the crime problem used by aspiring politicians and law enforcement officials. In sum, although the global trend is toward abolishing the death penalty, pockets of resistance in the United States remain and will be difficult to change.

See also **Class Justice; Cruel and Unusual Punishment; DNA Usage in Criminal Justice; Eyewitness Identification; Miscarriages of Justice**

Note

Sources for virtually all material in this entry may be found in Robert M. Bohm, *Deathquest III: An Introduction to the Theory and Practice of Capital Punishment in the United States,* 3d ed. (Cincinnati, OH: Anderson, 2007).

Further Reading

Acker, James R., Robert M. Bohm, and Charles S. Lanier, eds., *America's Experiment with Capital Punishment: Reflections on the Past, Present and Future of the Ultimate Penal Sanction,* 2d ed. Durham, NC: Carolina Academic Press, 2003.

Bakken, Gordon Morris, *Invitation to an Execution: A History of the Death Penalty in the United States.* Albuquerque: University of New Mexico Press, 2010.

Banner, Stuart, *The Death Penalty: An American History.* Cambridge, MA: Harvard University Press, 2002.

Bedau, Hugo, and Paul Cassell, eds., *Debating the Death Penalty: Should America Have Capital Punishment?* New York: Oxford University Press, 2004.

Bohm, Robert M., *Deathquest III: An Introduction to the Theory and Practice of Capital Punishment in the United States,* 3d ed. Cincinnati, OH: Anderson, 2007.

Gallup, "Death Penalty." 2010. http://www.gallup.com/poll/1606/death-penalty.aspx

Haney, Craig, *Death by Design: Capital Punishment as a Social Psychological System.* New York: Oxford University Press, 2005.

Sundby, Scott E., *A Life and Death Decision: A Jury Weighs the Death Penalty.* New York: Palgrave Macmillan, 2007.

DNA USAGE IN CRIMINAL JUSTICE

Julia Selman-Ayetey

Deoxyribonucleic acid (DNA) is one of the most valuable discoveries of the 20th century. Imported from the medical and scientific fields, the application of DNA technology in the criminal justice system has revolutionized the way crimes are investigated and prosecuted. Once considered an irrelevant and "stupid molecule" (Watson 1997, 2), DNA is now frequently considered a reliable and powerful silent witness able to identify or eliminate suspects as well as clinch convictions. However, its use in the criminal justice system is not without controversy. Indeed, its use raises quite a number of ethical concerns, and its ability to incriminate the innocent, while less known, is well documented. This has occurred through administrative and technical errors and disturbingly through deliberate distortion of forensic analysis and findings as well as evidence planting. This entry is by no means a comprehensive treatise on DNA; it is meant simply to introduce the reader to some of the contentious issues surrounding the use of DNA in the criminal justice system.

Background

DNA is a molecule located in the nuclei of all cells other than red blood cells and, with the exception of monozygotic (identical) twins, is unique to individuals. "Surprisingly, unlike the unwavering excitement that now surrounds DNA, the discovery of its structure was accompanied by much less fanfare" (Selman 2003, 10). The molecule's rise to prominence only followed the realization that it carried vital genetic information, including disease, from parent to offspring—essentially a "blueprint of life." Since its discovery, DNA technology has been used in a variety of settings, from gene therapy in clinical medicine to genetic engineering in plants and animals for improved agricultural productivity. It has also been applied in a number of other disciplines, such as anthropology, theology, philosophy, law, and, of more relevance to this entry, criminal justice systems the world over.

The use of DNA in police investigations was the result of significant scientific advances made primarily by Sir Alec Jeffreys, professor of genetics at the University of Leicester in England. Jeffreys coined the term "DNA fingerprinting" after discovering that certain regions (loci) of DNA have a high degree of variability that makes them virtually unique to individuals (Jeffreys 1985).

This simple scientific fact was first used in a criminal context in a rather complicated double rape and murder case known as the Pitchfork case. In 1987, it emerged that a man had given his blood sample to the police, but had identified it as that of his colleague, Colin Pitchfork. When he was overheard talking about the switch and this was reported to the police, Pitchfork was arrested. DNA analysis confirmed that he had raped both girls. Pitchfork confessed to the murders and was sentenced to life in prison.

The original method created by Jeffreys was initially used by British police forces; however, owing to the expense and great length of time it took to generate a DNA fingerprint, both the British and U.S. criminal justice systems now use what is accurately referred to as "DNA profiling." The difference between the two DNA identification methods is an important one, as Jeffreys states:

> Unfortunately—and particularly in the United States—the term "DNA fingerprinting," which we specifically apply to the original multi-locus system in which we look at scores of markers, has been corrupted to be used in almost any DNA typing system. That has created a problem in court, because DNA profiling does not produce DNA fingerprints.…So this is a semantic problem, but a serious one. (Jeffreys 1995)

DNA profiling involves extracting DNA from biological samples taken from hair, body tissue, or fluids such as saliva, semen, or blood. Forensic analysis of loci on the DNA then produces a DNA profile. DNA profiling is less conclusive than DNA fingerprinting, as it examines considerably fewer loci or markers of a person's DNA. At

THE PITCHFORK CASE

In November 1983, in the small town of Narborough, England, Lynda Mann was raped and strangled to death. The search for her killer proved futile. In 1986, Dawn Ashworth, another teenage girl, was also found dead in Narborough after having been raped. Semen samples revealed that the killer of both girls had the same blood type. Police later arrested a local teenage boy, who falsely confessed to killing Ashworth but denied involvement in the death of Mann.

Aware of Professor Jeffreys' work with DNA fingerprinting, police submitted semen samples from both murder cases along with a sample of the suspect to Jeffreys for DNA testing. Forensic analysis concluded that the rapist in these cases was not the local boy. It did, however, indicate that the killer in both instances was the same person. Then, in 1987, Leicester police conducted the world's first mass screening by asking almost 5,000 men in the area to provide blood or saliva samples to absolve themselves of the offense. After six months of processing all the samples, there was still no match. Later that year, someone overheard that a man had substituted his sample for that of Colin Pitchfork, his colleague, who was tested and subsequently arrested.

present, DNA profiling cannot examine all the differences between people's DNA; thus, although they will not have the same entire DNA sequence or genome, there is a remote chance that two unrelated people could have the same DNA profile. Hence the discriminatory power of any DNA profile increases with the number of loci tested. When DNA typing first started being used to facilitate police investigations in England and Wales, the standard analysis involved the examination of 6 loci. Now they examine 10 (plus 1 that indicates gender). The United States currently examines 13 sites. Given the number of loci that are now examined, unrelated people are extremely unlikely to have the same DNA profile, and if they are collected and analyzed correctly, DNA profiles are accepted by scientists as well as the courts as being conclusive enough to establish identification irrefutably.

It is this consensus that has greatly contributed to the establishment and expansion of DNA databases. The use of DNA databases enables new profiles to be compared against those already stored on the system. Matches may be found on examining evidence from two (or more) crime scenes, which may mean that a particular suspect was involved in both crimes, and, as is often the case, a match can be made between an individual and a crime scene. Although a match alone does not prove involvement in a crime, it can provide unquestionable proof that a person was present at the scene of a crime. This, together with other evidence, may illustrate beyond a reasonable doubt that an individual is the offender.

Key Events

The first official forensic database, the National DNA Database (NDNAD), was established in the United Kingdom in 1995. Having previously operated local and state databases, the United States followed suit in 1998 when its national DNA database, the National DNA Index System (NDIS), was launched under the authority of the DNA Identification Act of 1994 (Federal Bureau of Investigation 2009). The NDIS together with local and state databases make up the Combined DNA Index System (CODIS). CODIS stores profiles on two indexes. The Forensic Index contains profiles recovered from crime scenes, whereas profiles of convicted offenders or certain categories of arrestees are held under the Offender Index (Federal Bureau of Investigation 2009). The U.S. national DNA database currently contains profiles of approximately 0.5 percent of the population. In comparison, the British national database is estimated to have profiles of over 10 percent of the population (of England and Wales), or 5.53 million profiles (National Policing Improvement Agency [NPIA] 2009).

The potential of DNA technology was pushed further with the introduction of DNA dragnets or sweeps (or mass screenings, as they are called in the United Kingdom). Dragnets involve requesting a group of individuals who fit a general description of the suspect to voluntarily provide a DNA sample for profile analysis in order to exclude themselves as suspects. The first dragnet was used in the United Kingdom in the Colin Pitchfork

case. Since then, this method has become increasingly common in Europe, including a dragnet in Germany in 1998 that sampled DNA from 16,000 men in an attempt to find the perpetrator of the murder of a young girl (Dundes 2001). Although there have been about a dozen DNA dragnets in the United States (Duster 2008), this method of "elimination by numbers" has been used less frequently here than in Britain owing to potential conflicts with the Fourth Amendment, which provides, among other things, protection against unreasonable searches and seizures.

Familial searching is another milestone in DNA applications in the criminal justice system. It is predominantly used in cases in which a crime-scene profile has failed to match a suspect profile on the national DNA database. Familial searching involves probing the database to find profiles similar to the one taken from the crime scene in the hope of being led to the suspect. The profiles that are found to be similar to the one from the crime scene would be from individuals who have a high probability of being relatives of the perpetrator. This is viable because people inherit 50 percent of their DNA from each parent. Thus, close family members such as parents, children, siblings, and even aunts and uncles are likely to share some genetic markers. This approach was first used in the United Kingdom in 2002. (In 2002, a DNA familial search led to the identification of an offender who was deceased. In 2003, familial searches led to the identification of two other offenders in the United Kingdom, one of whom was Craig Harman, who was convicted of manslaughter in 2004.) It was initiated in the United States in 2003, so that familial searching is still relatively new. At present, familial searches are not likely to become a regular occurrence in criminal investigations primarily because of the cost of running such a search (estimated at $9,000 per search in 2004) ("Sins of the Fathers" 2004). As forensic DNA technology continues to develop and costs decrease, however, law enforcement may want to make familial searches common practice.

Both these applications of DNA forensic technology raise important issues regarding ethics, confidentiality, civil liberties, and human rights (Williams and Johnson 2006; Haimes 2006). Clearly, it is important that all issues of concern be brought to the public forefront for debate and that the government and relevant bodies implement appropriate legislation, policies, and procedures to ensure that innocent individuals and families are not adversely affected. This may require the amendment of laws that have recently been passed without adequate public discussion.

Legal Decisions

During early uses of DNA as evidence, the main assistance with admissibility the courts had was the standard as laid out in *Frye v. United States.* Under the *Frye* test, scientific evidence could be admitted only if it had "gained general acceptance in the particular field in which it belongs" (*Frye v. United States*). In 1993, however, with the use of DNA profiles becoming more prevalent, the Supreme Court set a new standard

DNA AND THE CRIMINAL JUSTICE SYSTEM SINCE 1987

- 1987: The first DNA exoneration and mass screening took place in the double murder investigation of Lynda Mann and Dawn Ashworth in England. In Florida, rapist Tommy Lee Andrews became the first ever to be convicted on the basis of DNA evidence.
- 1988: Colin Pitchfork, the first man apprehended on the basis of DNA profiling, was sentenced to life in prison for the murders of Mann and Ashworth.
- 1989: Gary Dotson became the first person in the United States to be exonerated and released from prison thanks to DNA results.
- 1993: Kirk Bloodsworth was released from prison on June 28, 1993, making him the first person on death row to be exonerated by DNA evidence in the United States. Also, Dr. Kary B. Mullis won the Nobel Prize in Chemistry for the invention of the polymerase chain reaction (PCR) method. Prior to the PCR method, DNA analysis was slow, required large quantities of sample, and involved difficulty in analyzing mixed or contaminated samples. PCR enabled profiles to be produced from minute and degraded samples of DNA. In addition to its applications in other fields, PCR enabled DNA profiling to be used in a larger number of cases.
- 1994: For the very first time, analysis of nonhuman DNA led to the identification and apprehension of a criminal. Royal Canadian Mounted Police officers had hairs from a man's pet cat analyzed, which pointed to him as the murderer of his wife.
- 2001: In May, the Criminal Justice and Police Act (CJPA) of 2001 came into force in England and Wales. This law authorizes the retention of DNA samples and profiles of anyone charged with any offense that carried a penalty of imprisonment or anyone charged with a few specified noncustodial offences.
- 2002: The number of exonerated death row inmates in the United States based on DNA testing reached 100.
- 2004: In England, Craig Harman became the first person in the world to be prosecuted and convicted as a result of DNA database familial searching. In the United States, President George W. Bush signed the Innocence Protection Act, which amended the federal code to permit postconviction DNA testing and established a grant program to help states defray the costs of testing.
- 2006: The DNA Fingerprinting Act of 2005 became law in the United States. This legislation permits the DNA sampling of foreign citizens detained on federal grounds and reduced the stage at which a DNA profile can be uploaded onto the federal database from charge to arrest. It also authorized government funds to support the analysis and retention of all DNA samples and profiles on the national database. Furthermore, this act requires individuals who would like their profiles removed from the database to file certified documents stating that they have been acquitted or have had charges dismissed before their requests can be processed.

- 2009: The longest-serving prisoner ever to be exonerated by DNA evidence, James Bain of Florida, was released after spending 35 years in prison. Also, the U.S. Supreme Court ruled (in *Melendez-Diaz v. Massachusetts*) that crime lab analysts are required to submit to cross-examinations in trials where data from their labs is used as evidence.

in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* This standard expanded the *Frye* test by recognizing the need to highlight issues that might bias or mislead the jury. In particular, it permitted for the first time the admission of new factors, such as publications and probabilities of error, to assist with evaluating the degree of reliability (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*). One of the most significant cases regarding the use of DNA typing in criminal trials was *People v. Castro* (1989). This case fervently contested the admissibility of DNA evidence in court. In its opinion, the Court issued recommendations that would encourage fair and just use of DNA evidence. The Court held that it should be provided with chain of custody of documents and details of any defects or errors. It also held that laboratory results should be provided both to the defense counsel and the court.

Although a number of state and federal cases have created a gateway into the courtroom for forensic DNA evidence, courts have also declined to admit DNA evidence. Some of these cases involved laboratories that had unreliable or dubious practices (*Schwartz v. State* 1989).

In addition to being used as evidence to convict suspects, DNA technology is increasingly being used to exonerate previously convicted individuals. On June 12, 2006, for the very first time, the U.S. Supreme Court considered the standards necessary to reopen a postconviction death penalty case involving DNA evidence. After Paul House had served more than 19 years on death row, the Supreme Court held that he was entitled to a new trial (*House v. Bell* 2006). House was originally convicted of murder, but recent DNA analysis showed that the body fluids found on the victim's clothes were not his. This new evidence was sufficient to meet the precedent for postconviction claims of innocence as set out in *Schlup v. Delo* (1995).

In addition to case law, DNA has also affected legislation. The Innocence Protection Act was tabled to the U.S. Senate in February 2000. On October 30, 2004, the Justice for All Act of 2004, which includes the Innocence Protection Act of 2004, became law. This act seeks to do a number of things, the most significant of which are to (1) enhance and protect the rights of crime victims; (2) reduce the backlog of untested DNA samples; (3) expand forensic laboratories; (4) intensify research into new DNA testing technologies; (5) develop training programs on the proper collection, preservation, and analysis of DNA evidence; and (6) facilitate the exoneration of innocent individuals through postconviction testing of DNA evidence.

In December 2003, a private citizen submitted to the attorney general's office in California a proposed initiative titled DNA Fingerprint, Unsolved Crime and Innocence Protection Act. (Bruce Harrington submitted the proposal after his brother and sister-in-law had been murdered some years earlier.) This proposal sought to widen the category of instances in which DNA samples could be taken and profiles stored on the state's database. Proposition 69, as the proposal became known, was approved by voters in California on November 2, 2004. The effect of this enactment was that as of November 3, 2004, the following categories of people will have a DNA sample taken and uploaded onto the state and national DNA database: (1) any person, adult or juvenile, convicted of any felony (including any person in prison, on probation, or on parole for any felony committed prior to November 3, 2004, or any person on probation or any other supervised release for any offense and who has a prior felony); (2) any person convicted of any sex or arson offense or attempt; and (3) adults arrested for murder, voluntary manslaughter, or felony sex offenses (which includes rape) or attempt to commit one of these crimes (Office of the Attorney General 2007).

Furthermore, as of January 2, 2009, all adults arrested for any felony are subject to DNA collection and retention. Prior to the passing of Proposition 69, only those convicted of a serious felony such as rape and murder had to submit DNA samples (California Legislative Analyst's Office 2004). Thus Proposition 69 has effectively resulted in the massive expansion of California's DNA database. It is worth noting that Louisiana, Minnesota, Texas, and Virginia already have legislation that authorizes taking DNA samples from adults arrested for a felony. There is therefore a clear trend toward a so-called DNA-based criminal justice system.

Conclusion

As a result of ongoing advances by scientists, extensive legislation, support from police and prosecutors, and substantial funding from the government, the drive to expand the application of DNA technology in the criminal justice system continues. Currently, scientists at the University of Southampton in the United Kingdom are in the process of developing a method of forensic analysis that could enable DNA samples to be transformed into profiles at the scene of the crime ("Forensic Science Hots Up" 2008). Furthermore, DNA profiling involving testing for race and other physical characteristics has slowly begun. Scientists now have the ability to decipher from DNA analysis the gender and age of an individual, and research is currently being conducted toward identifying eye, hair, and skin color. This can obviously assist the police with composing more accurate descriptions of a suspect. Although this could significantly facilitate criminal investigations, it also raises a number of sociological and ethical issues: What defines race? Is it what the public see, or is it what the individual knows or believes he or she is? How do we deal with a situation in which racial genetic testing reveals information the individual did not know and may not have wanted to know about himself or herself?

Could racial DNA profiling lead to eugenics? These are just some of the issues (Duster 2008; Ossorio 2006). Perhaps appropriately, testing for racial characteristics has not yet become common practice. Before further steps are taken to increase its utilization, serious consultation with sociologists, criminologists, ethicists, psychologists, geneticists, and lawyers must be conducted.

Given the benefits of the use of DNA technology in the criminal justice system and the perceived breaches of rights it begets, particularly for those who are acquitted or never charged, there have been calls by some to collect DNA samples and store DNA profiles of all citizens on forensic databases. Proponents of a forensic database holding DNA profiles of the entire citizenry argue that it will reduce racial discrimination in the disproportionate storage of profiles of ethnic minorities and simultaneously increase fairness, as everyone would be incurring the same degree of threat to privacy. Furthermore, because everyone would know that their DNA was on the database, proponents also hold that such a database would act as a deterrent (Williamson and Duncan 2002; Kaye and Smith 2004; Smith, Kaye, and Imwinkelried 2001; Tracy and Morgan 2000).

Arguments against this proposal include issues relating to the presumption of innocence and the right to avoid self-incrimination (embodied in the Fifth Amendment in the United States), not to mention the potential misuses of genetic information by government agencies as well as others, such as insurance companies and employers who might benefit from such information. Given the immense financial cost and practical difficulties alone, the prospect of implementing such an idea is fraught with numerous obstacles. Given the speed at which DNA legislation has expanded, however, many believe implementation of these ideas is a real possibility and perhaps inevitable. The key question is whether this will happen explicitly with public debate or by stealth.

DNA, DNA profiles, databases, and related applications have irreversibly changed the way humans think about life, disease, and the resolution of crime. However, it is its use in the criminal justice system that continues to attract the most controversy (Harmon 1993; Neufeld 1993; McCartney 2006). The use of DNA in the criminal justice system provides numerous benefits resulting in more convictions of the guilty and more exonerations of the innocent. It also raises serious questions, including but not limited to privacy, probable cause, coercion, consent, confidentiality, civil liberties, subjective identity, and other ethical considerations. Many of these concerns are legitimate, particularly because the introduction of legislation often occurs devoid of public scrutiny. The recent vote on Proposition 69 illustrates that public consultation has been initiated. It is necessary that future consultations be complemented with a discussion of the relevant concerns so that the public can form an educated opinion. Much more public debate is essential to avoid the introduction of unfair legislation and practices and to prevent miscarriages of justice that would ultimately affect us all.

See also **Expert Witness Testimony; Miscarriages of Justice; Biotechnology (vol. 4)**

Further Reading

Aronson, Jay D., *Genetic Witness: Science, Law, and Controversy in the Making of DNA Profiling.* New Brunswick, NJ: Rutgers University Press, 2007.

California Legislative Analyst's Office, "Proposition 69: DNA Samples, Collection, Database, Funding, Initiative Statute." 2004. http://www.lao.ca.gov/ballot/2004/69_11_2004.htm

Clark, George Woody, *Justice and Science: Trials and Triumphs of DNA Evidence.* New Brunswick, NJ: Rutgers University Press, 2008.

Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S.Ct. 2786 (1993).

Dundes, Lauren, "Is the American Public Ready to Embrace DNA as a Crime- Fighting Tool? A Survey Assessing Support for DNA Databases." *Bulletin of Science, Technology and Society* 21, no. 5 (2001): 369–375.

Duster, Tory, "DNA Dragnets and Race: Larger Social Context, History, and Future." *GeneWatch* 21 (2008): 3–5. http://www.councilforresponsiblegenetics.org/pageDocuments/4Z1DPHLC1I.pdf

Federal Bureau of Investigation, *CODIS* (2009). http://www.fbi.gov/hq/lab/html/codisbrochure_text.htm

"Forensic Science Hots Up." *Highlights in Chemical Biology.* October 31, 2008. http://www.rsc.org/Publishing/Journals/cb/Volume/2009/1/Forensic_science.asp

Frye v. United States, 293 F. 1013. D.C. Cir. (1923).

Haimes, Erica, "Social and Ethical Issues in the Use of Familial Searching in Forensic Investi gations: Insights from Family and Kinship Studies." *Journal of Law, Medicine and Ethics* 34, no. 2 (2006): 263–276.

Harmon, Rockne P., "Legal Criticisms of DNA Typing: Where's the Beef?" *Journal of Criminal Law and Criminology* 84, no. 1 (1993): 175–188.

House v. Bell, 547 U.S. 518 (2006).

Jeffreys, Alec, "DNA Profiling and Minisatellites." *Science Watch.* 1995. http://archive.sciencewatch.com/interviews/sir_alec_jeffreys.htm

Jeffreys, Alec J., Victoria Wilson, and Swee Lay Thien, "Hyper Variable 'Minisatellite' Regions in Human DNA." *Nature* 314 (1985): 67–73.

Kaye, D. H., and Michael E. Smith, "DNA Databases for Law Enforcement: The Coverage Question and the Case for a Population-Wide Database." In *DNA and the Criminal Justice System: The Technology of Justice,* ed. David Lazer. Cambridge, MA: MIT Press, 2004.

Lazer, David, ed., *DNA and the Criminal Justice System: The Technology of Justice.* Cambridge, MA: MIT Press, 2004.

Lee, Henry C., and Frank Tirnady, *Blood Evidence: How DNA is Revolutionizing the Way We Solve Crimes.* Cambridge, MA: Perseus, 2003.

Lynch, Michael, et al., *Truth Machine: The Contentious History of DNA Fingerprinting.* Chicago: University of Chicago Press, 2009.

McCartney, Carole, "The DNA Expansion Programme and Criminal Investigation." *British Journal of Criminology* 46 (2006): 175–192.

National Policing Improvement Agency (NPIA), The National DNA Database: Statistics (2009). http://www.npia.police.uk/en/13338.htm

Neufeld, Peter, "Have You No Sense of Decency?" *Journal of Criminal Law and Criminology* 84, no. 1 (1993).

Office of the Attorney General, State of California, Department of Justice, Bureau of Forensic Services, "Proposition 69: FAQs." 2007. http://ag.ca.gov/bfs/content/faq.htm

Ossorio, Pilar N., "About Face: Forensic Genetic Testing for Race and Visible Traits." *Journal of Law, Medicine and Ethics* 34, no. 2 (2006): 277–292.

People v. Castro, 545 N.Y.S. 2d. 985. NY Sup. Ct. (1989).

Rudin, Norah, and Keith Inman, *An Introduction to Forensic DNA Analysis,* 2d ed. Boca Raton, FL: CRC Press, 2001.

Schlup v. Delo, 513 U.S. 298 (1995).

Schwartz v. State, 447 N.W. 2d 422 (1989).

Selman, Julia, "From Human Cell to Prison Cell: A Critique of the Use of DNA Profiling in the British Criminal Justice System." Master's thesis, University of Cambridge, 2003.

"The Sins of the Fathers." *Economist* (April 24, 2004): 60.

Smith, Michael E., David H. Kaye, and Edward J. Imwinkelried, "DNA Data from Everyone Would Combat Crime, Racism." *USA Today* (July 26, 2001). http://www.usatoday.com/news/opinion/2001–07–26-ncguest2.htm

Tracy, Paul E., and Vincent Morgan, "Big Brother and His Science Kit: DNA Databases for 21st Century Crime Control?" *Journal of Criminal Law and Criminology* 90, no. 2 (2000): 635–690.

Watson, James D., *The Double Helix: A Personal Account of the Discovery of the Structure of DNA* London: Weidenfeld and Nicolson, 1997.

Williams, Robin, and Paul Johnson, *Genetic Policing: The Uses of DNA in Police Investigations.* Cullompton, U.K.: Willan, 2008.

Williams, Robin, and Paul Johnson, "Inclusiveness, Effectiveness and Intrusiveness: Issues in the Developing Uses of DNA Profiling in Support of Criminal Investigations." *Journal of Law, Medicine and Ethics* 34, no. 2 (2006): 234–247.

Williamson, Robert, and Rony Duncan, "DNA Testing For All." *Nature* 418 (2002): 585–586.

DOMESTIC VIOLENCE INTERVENTIONS

Venessa Garcia

Domestic violence and the question of whether to intervene into the family dwelling affected by physical or psychological abuse has, until recently, been controversial because of the different viewpoints regarding the issue as one of privacy versus one of public accountability. Once domestic violence was viewed as a social problem, the controversies shifted to what was the appropriate form of intervention or who should be responsible for carrying out domestic violence practices—law enforcement and criminal justice agencies or social and human service agencies. Another set of controversies surrounding domestic violence practices stems from the often competing or contradictory goals of punishment versus rehabilitation.

Background

Historically, domestic violence was seen as a private trouble. It occurred within the privacy of a man's own home. He was in charge of all affairs and persons residing in his

home, and he had the right to chastise his wife. According to the Old Testament, women were the source of all evil. Under English common law, the husband was allowed to chastise his wife with restraint. Based on religious beliefs, the law limited the husband's violence. With the secularization of society, however, this violence became problematic. Nevertheless, in the colonies, a new liberal Lockean philosophy focusing on public order became the foundation for the establishment of domestic violence laws that remained under the umbrella of private order for centuries (Buzawa 2002).

It was not until the 1970s that feminists adopted the concern for violence against women. Domestic violence came to be understood as the domination of men over women in all spheres of a patriarchal society. In opposition to past liberal philosophy, feminists argued that the power and domination at the root of domestic violence required that society redefine this violence as a social problem instead of a private family affair. This argument followed C. Wright Mills's sociological tenet that personal troubles are in fact public issues (Mills 1976) and that society would eventually come to change domestic violence practices.

Although the 1970s Battered Women's Movement worked to change domestic violence laws, practices of the 1980s still reflected the definition of domestic violence as a private issue. According to the Uniform Crime Report, in 1989 women were six times more likely than men to be victimized by a spouse, ex-spouse, boyfriend, or girlfriend. Within a nine-year period, intimates committed 5.6 million violent acts against women, an annual average of almost 626,000. One-quarter of these assaults were reported to the police. It was reported that half of the complaints were an effort to prevent the abuse from recurring, whereas one-quarter were attempts to punish the abuser. Half of the victims who reported domestic violence to the National Crime Victimization Survey claimed to have had no response from the police because, as they were informed, this was a private matter (Harlow 1991).

Today in the United States, an incident of domestic violence against women occurs every 15 seconds. Research has found that battering is the single largest cause of injury to women. Annually, roughly 1 million women seek medical attention as a result of domestic violence, and their husbands or boyfriends commit 30 percent of all homicides against women (Belknap 2006). These statistics hardly suggest that such incidents are private matters. Yet research has found that 75 percent of all stranger assaults result in arrest and court adjudication, whereas only 16 percent of all family assaults, usually charged as misdemeanors and not felonies, result in arrest and court adjudication (Dobash 1978).

Key Legal and Social Moments

In terms of legal responses to domestic violence, it is believed that under English common law, Judge Sir Francis Buller in the 1780s stated that a husband can physically chastise his wife as long as he did not use a stick thicker than his thumb (Table 1). This

became known as the *rule of thumb.* Others claim, however, that there is no reference to this statement in English common law. It is known that as early as 1655, the Massachusetts Bay Colony prohibited domestic violence. In 1824, however, a husband's right to assault his wife became codified under state law. The Mississippi State Supreme Court ruled that the husband had a right to chastise his wife physically, though in moderation (*Bradley v. State* 1824). Although the rule of thumb was referenced in this case, it was not used to justify the decision. In 1871, however, Alabama became the first state to recognize a wife's right to legal protection against her husband's physical abuse (*Fulgham v. State* 1871). Unfortunately, this ruling soon became a paper promise, since victims found that the criminal justice system still held strongly to the belief that domestic violence was a private trouble. In 1879, the court ruled that a man cannot be criminally prosecuted for assaulting his wife unless the violence was cruel or created permanent injury (*State v. Oliver* 1879). Even as recently as 1962, a husband's right to chastise his wife physically was legalized in *Joyner v. Joyner.*

It was not until the 1970s, with the Battered Women's Movement, that domestic violence began to be recognized as a social problem. Specifically, in 1977, Oregon became the first state to legislate mandatory arrest, and in 1979 President Jimmy Carter established the Office of Domestic Violence; however, the landmark case that truly took hold of domestic violence practices was *Thurman v. City of Torrington* (1984). *Thurman* was a civil case in which it was recognized that police had a legal responsibility to respond to and protect victims of domestic violence. The $2.3 million awarded to Tracy Thurman was the key moment that changed police practice in their responses. Although, by 1983,

TABLE 1. Legal Changes in Domestic Violence Practices

Rule of thumb. It is commonly believed that under English common law, Judge Sir Francis Buller in the 1780s stated that a husband can physically chastise his wife as long as he does not use a stick thicker than his thumb (rule of thumb). Others, however, claim no reference to this statement in English common law.
Bradley v. State (1824). A husband had a right to physically chastise his wife, though in moderation.
State v. Oliver (1879). The criminal law did not apply to a husband's assault unless the violence was cruel or led to permanent injury to his wife.
Joyner v. Joyner (1962). A husband had a right to use force to compel his wife to "behave" and "know her place."
Thurman v. City of Torrington (1984). In this civil case, police were found to be negligent in responding to and protecting victims of domestic violence.
State v. Ciskie (1988)* and ***State v. Baker*** (1980).** These were the first cases to uphold the use of "battered woman syndrome" evidence via expert testimony.

**State v. Ciskie,* 110 Wash. 2d 263 (1988).

***State v. Baker,* 424 A.2d 171. (NH S.Ct. 1980).

every state had made legal remedies in response to the demands of the Battered Women's Movement, many were still reluctant to intervene in so-called family matters. The *Thurman* case changed this practice.

Another key moment in domestic violence practices was the Minneapolis Experiment (Sherman and Berk 1984). The Minneapolis Experiment, conducted in 1984, found that as compared with previous practices, arrest was a greater deterrent to domestic violence. As a result of this experiment as well as the *Thurman* decision, many states implemented mandatory arrest laws. Since 1984, however, replication of the Minneapolis Experiment has found that arrest works as a deterrent only for the six months immediately following the arrest and not more. Thus the debate still continues: what is the most effective way to address domestic violence? Nonetheless, by 1986, some 46 percent of police departments in cities with populations greater than 100,000 had a proarrest policy based on probable cause. In 1984, it was only 10 percent (Steinman 1990, 2).

Domestic Violence Theories

Three major theories have influenced domestic violence practices. Individually oriented theories examine the character of both the batterer and the battered. These theories have brought about many negative myths and stereotypes about domestic violence and especially about the abused woman. Most people saw battered women as pathological. Recidivists were seen as masochistic, weak, or sick or women who sought out batterers. For this reason, women were referred to psychologists and various social service agencies. In responding to domestic violence calls, many police officers believed that the man's violence was justified because the woman constantly nagged him; for a man to use physical force, the woman must be at fault. In these cases, the police almost always sided with the man.

The big question with domestic violence was why did the woman remain in an abusive relationship? Many people believed that she was getting a meal ticket, and after so long, why did she complain now? Many concluded that she wanted to get revenge after a recent fight with her abuser. The assumption here was that she purposely provoked him until he was angry enough to strike her, and when he did, she called the police. Another myth that the criminal justice and judicial systems utilized was that these women never pressed charges; they were weak-willed women who could not follow through. Therefore the police did not waste valuable police time, as well as taxpayers' money, arresting the man, especially if he and the abused woman were married. Unfortunately, there is still evidence of these victim-blaming practices within the criminal justice system in the making of arrests and the choosing of prosecutorial actions.

Family-oriented and subcultural theories focus on characteristics within the family and on socialization patterns. According to these theories, the characteristics of the family predict future violence; that is, violence begets violence. In other words, adults who

experience or witness violence during childhood are more prone to becoming violent adults or battered adults. Children are often socialized that women are the property of men or that violence against one's spouse is acceptable. Unfortunately, some of these children grow up to be police officers. Within these theories, however, people believe that violence occurs in minority families, low-income families, and families containing alcohol or substance abusers. In responding to domestic violence calls, police who follow these myths generally do not consider such situations serious because they believe that the cultures of these families condone violence.

Feminist theories erased many of these myths from the minds of many people, although not all. These theories utilize a macrolevel analysis. They point to the structural violence in Western society. The privatized family structure makes domestic violence an individual problem, not a societal one. Accordingly, our male-dominated society keeps women economically and emotionally dependent on their men, giving them few or no options for a violence-free life. Feminists argue that the male-dominated criminal justice and judicial systems allow and even encourage this to happen. It was the fight of feminists that forced the police to change their policies toward domestic violence. This change was not the result of the acceptance of the feminist theories, however; instead, it was a result of feminist grassroots movements to sue police departments for failing to protect female victims.

Domestic Violence Practices

Police Responses

In the early 1980s and prior to that time, police as well as the courts felt that domestic violence was a private matter in which they should not interfere. According to police, it was not real police work; therefore, the police should not be dragged into it. Domestic violence was given very low priority and avoided if possible. In fact, during the mid-1960s, police departments in urban areas with high crime rates, such as Detroit, were actually screening out domestic violence calls.

Police domestic violence policies are evident in their training manuals. According to the Police Training Academy in Michigan, until recent changes in domestic violence policies, police officers were instructed to avoid arrest whenever possible and to appeal to the vanity of the individuals involved (Martin 1983). In responding to a call, the police were to tell the woman to consider time lost and court costs. The officer was to inform the couple that his only interest was to prevent a breach of the peace. He would recommend a postponement owing to the unavailability of a judge or court session, even if untrue. This statement was premised on the belief in the myth that battered women often changed their minds about pressing charges before the case came to court. He explained that she would probably reconcile with her abuser before the hearing. Police even went as far as scaring the woman, making her realize that pressing charges would infuriate her abuser, possibly making him retaliate worse than ever. In addition, she had to realize that the police could not babysit her.

In California, the Training Bulletin on Techniques of Dispute Interventions also advised officers to avoid arrest except to protect life and property and preserve the peace. In addition, it instructed the officer to encourage the victim to reason with her attacker. In Detroit as in many other cities, police precincts received more calls involving domestic violence than complaints of any other serious crime. Detroit's training consisted of 240 hours, yet only 3 to 5 hours were dedicated to this most frequent and recurrent crime. Officers were trained to avoid action as well as injury to themselves. Domestic violence was not a crime unless there was severe injury, and many times no action was taken even then. The International Association of Police Chiefs stated that it was unnecessary to create a police matter when only a family matter existed.

In domestic violence cases, the police saw their role as that of preservers of the family. This meant that no police action was taken even if it meant persuading the woman not to press charges or denying that she could be helped in any way. The police played mediator roles in attempting to reunite the couple. Arrests were made only when there was a disruption of the peace or the possibility that the police would have to be called back to the scene.

All studies have shown that police were reluctant to intervene in domestic violence. They were even more reluctant if the couple was married, moving the incident farther into the private realm. A husband had more right over his wife than a boyfriend did because an unmarried couple did not constitute a family. Police were also reluctant to intervene in the domestic affairs of recidivists. Over time, officers became detached from a woman who constantly cried for help but did not leave her abuser. In response to these calls, police often arrived with the intention of keeping the peace but no intention of intervening.

As mentioned previously, police officials practiced a no-arrest policy. Yet when police did arrest, there were strict guidelines. To begin, there had to be a witness present other than the abused woman and her children. This was something that rarely occurred because domestic violence usually occurs within the privacy of a home. If an arrest was made, no matter how serious the abuse, it had to be witnessed by an officer and was charged as a misdemeanor. This also almost never happened. To assault another person in front of a police officer is to challenge and show disrespect for the authority of the police. Nonaction protected the officer from personal danger and liability of false arrest. When a woman had a man arrested for domestic violence, many times she would drop the charges. This allowed the man to sue the police department for false arrest. In order to release themselves from this liability, either no arrest was made or the woman was forced to make a citizen's arrest.

A study conducted by the FBI found that domestic disturbances caused the greatest number of officer deaths and injuries. This study created a panic as well as a reluctance to respond to domestic violence calls. In responding to these crimes, oftentimes officers responded in an aggressive manner in order to protect themselves from any unforeseeable

dangers. Their response often made the woman feel that she was a criminal as well. When the FBI released its statistics to the police departments, it created a panic among officers, and police precincts started screening domestic violence calls. However, it was later found and reported that the FBI report overstated the number of officer deaths by three times the actual number. What the FBI did was combine bar fights, gang activities, and restraining deranged people into one disturbance category. In actuality, between 1973 and 1982, only 62 out of 1,085 deaths occurred because of domestic violence. This is a very small number, considering that police spend much more time at a domestic violence call than at any other type of call.

Court Procedures

In a 1975 New York conference on abused wives, Justice Yorka Linakis stated, "There is nothing more pathetic than to see a husband going to his home—usually in the company of a policeman—to collect his meager belongings" (Martin 1983). A Michigan circuit court judge argued that violence is provoked; therefore, the wife should be cited for contempt on this basis and both should be sentenced to jail. Prior to changes caused by the Battered Women's Movement, these were the kinds of attitudes a battered woman would encounter in court. Courts were highly insensitive to a woman's distress. This insensitivity was caused by the ignorance of the problem, inadequate laws, and a heavy backlog of other, more important cases.

When a woman decided to bring charges against her assailant, she had the choice of using a criminal court or a family court. The purpose of criminal court is to punish the criminal and deter the crime. If taken to criminal court, domestic violence is considered a crime. Within this broad category is physical injury, sexual abuse, rape, attempted rape, harassment, threat of physical abuse, death, destruction of another's property, kidnapping or involuntary confinement, or violation of a protection order. The state filed a criminal charge when an arrest was made or when a victim filed a private criminal complaint. A private criminal complaint was filed when the victim did not call the police or did call but the police failed to show up or did not make an arrest when they arrived. Penalties in a criminal court consist of a jail sentence, a fine, or a term of probation. Although normally there is not enough evidence in a domestic violence case for a conviction, a case must be proved beyond a reasonable doubt. The result is usually a warning to the abuser stating that further violence will be prosecuted. If there is enough evidence for a conviction, the prosecutor will usually arrange a plea bargain, bringing the charges down to a misdemeanor or, more often, a violation resulting in probation or, less seriously, a warning.

Although by 1983, in response to the demands of the women's movement, every state had made new legal remedies available to women, many were still reluctant to intervene in family matters. For this reason, most domestic violence cases have been thrown out of criminal court and sent to family court. In family court, a woman could file for a

divorce, custody of children, and alimony from her husband. Major problems with family court, though, are that only spouses and couples with children are allowed to file for remedies. This bars cohabitants and other intimates, who would not receive help and support otherwise, from seeking remedies. Although family court would be of greater help to an economically dependent woman with no occupational training, it is designed to protect the family assailant rather than the family victim. It has been recognized that family court is inappropriate for handling felony cases, since it provides the assailant with counsel and leaves the woman to fend for herself.

There were various civil remedies for which a battered woman could file. An order of protection or restraining order requires the abuser to refrain from violence and stay away from the victim. It can last up to one year. Violation of this order is contempt of court and is punishable by a jail sentence of up to six months, a fine, both, or a term of probation. A major problem with obtaining an order of protection is that it takes several days to receive, and often police do not enforce it, claiming that they have no record of the order or that it is a civil not a criminal matter and therefore out of their hands. In order to be protected while she waits for the order of protection, a woman can file for a temporary order of protection. This order can be obtained at night and on weekends. A victim of domestic violence can also file for damages or a peace bond. The problem with these remedies is that they require the abuser to give money to the court that could otherwise be used to support the victim and her children.

Conclusion

Although much of the domestic violence research as well as legislative changes and court decisions have focused on police practices, much has also been done to change prosecutorial and judicial practices. Specifically, prosecutors tend to oversee victim/witness units that tend to deal predominantly with victims of domestic violence. These units inform the victims of the processing of their cases and aid them in understanding the justice process as well as obtaining victim compensation. Within the courts, domestic violence courts have been implemented. These courts are organized so as to give a substantial focus to these sensitive and complex cases; however, research is still needed to assess the effectiveness of these practices. For example, although most police agencies have implemented proarrest policies, researchers have found that the discretion has been taken from the police and given to the prosecutor. Specifically, prosecutors tend to screen out many of these domestic violence cases before they can reach the courts. Furthermore, domestic violence courts are not usually fully structured. Instead, they operate much as early U.S. circuit courts did, in which the domestic violence court convenes one or two days a week and is overseen by one judge or sometimes a commissioner.

Questions of domestic violence practices have been present since the codification of the law; however, these practices did not truly become controversial until the 1970s,

and although these interventions or lack thereof may have peaked in their controversial nature, their legacies die hard. For example, although most police departments have mandatory arrest policies, many police officers still hesitate to make arrests. Then, when an arrest is made, the offender is usually charged with a misdemeanor, even when serious injuries have occurred. Furthermore, officer attitudes during arrest often reveal the prevalence of the private-trouble ideology within society. Finally, the fact that many domestic violence crimes go unreported reveals further problems in improving domestic violence practices. Victims do not report these crimes for many reasons. Sometimes victims do not believe that the police can or will do anything to help them, and sometimes victims themselves define the problem as a private trouble. As with many other controversies in criminal justice, the cultural roots at the heart of the problem suggest that domestic violence practices will remain controversial for some time to come.

See also **Domestic Violence—Behaviors and Causes (vol. 3)**

Further Reading

Belknap, Joanne, *The Invisible Woman: Gender, Crime, and Justice,* 3d ed. Belmont, CA: Wadsworth, 2006.

Bradley v. State, 1 Miss. 156 (1824).

Buzawa, Eve S., and Carl G. Buzawa, *Domestic Violence: The Criminal Justice Response,* 3d ed. Newbury Park, CA: Sage, 2002.

Davis, Richard L., *Domestic Violence: Intervention, Prevention, Policies, and Solutions.* Boca Raton, FL: CRC Press, 2008.

Dobash, R. Emerson, and Russell P. Dobash, "With Friends Like These Who Needs Enemies: Institutional Supports for the Patriarchy and Violence against Women." Paper presented at the 9th World Congress of Sociology, Uppsala, Sweden, July 1978.

Fulgham v. State, 46 Ala. 146–147 (1871).

Gosselin, Denise Kindshi, *Heavy Hands: An Introduction to the Crimes of Family Violence,* 3d ed. Upper Saddle River, NJ: Prentice Hall, 2004.

Harlow, Caroline W., *Female Victims of Violent Crime.* Washington, DC: U.S. Department of Justice, 1991.

Martin, Del, *Battered Wives.* New York: Pocket Books, 1983.

Mills, C. Wright, *The Sociological Imagination.* New York: Oxford University Press, 1976 [1959].

Roberts, Albert R. ed., *Handbook of Domestic Violence Intervention Strategies: Policies, Programs, and Legal Remedies.* New York: Oxford University Press, 2002.

Sherman, Lawrence W., and R. A. Berk, "The Specific Deterrent Effects of Arrest for Domestic Assault." *American Sociological Review* 49 (1984): 261–272.

State v. Oliver, 70 N.C. 60, 61–62 (1879).

Steinman, Michael, "Lowering Recidivism among Men Who Batter Women." *Journal of Police Science and Administration* 17 (1990): 2.

Thurman v. City of Torrington, 595 F. Supp 1521. D. Conn. (1984).

DRUG TRAFFICKING AND NARCO-TERRORISM

Judith Ann Warner

When politicians and journalists speak about the U.S. -Mexico border, drug trafficking is viewed as only part of the problem of border security. Preventing terrorist entry and unauthorized immigration are the chief issues. Drug trafficking occurs at all U.S. ports of entry, including the U.S. -Mexico border, the U.S.-Canada border, airports, and sea lanes. Despite the War on Drugs, cocaine, marijuana, methamphetamines and heroin are regularly crossed and bring billions into the hands of criminals. Conceivably, heightened border enforcement could have an impact on Mexican drug trafficking organizations (DTOs). Yet despite all of the efforts made by the White House and Congress to strengthen the border, drug smugglers can respond with ever more sophisticated and brutal acts. Indeed, drug trafficking represents a national security threat, because widespread corruption and drug-related violence could destabilize the government of Mexico (Grayson 2010).

Mexican drug trafficking organizations grow and transport marijuana and heroin and are active in manufacturing "meth" (methamphetamines). Estimates are that 90 percent of cocaine sold in the United States enters through the Mexico border. Alternately, the billions in profit realized from drug sales have created money laundering ventures and enabled the DTOs to purchase smuggled arms, including automatic weapons. The subsequent corruption and drug-related violence causes further concern owing to the possibility of "spillover violence," including kidnappings, torture and homicide in the United States.

The Dimensions of the Problem

The U.S. government has resisted the legalization of marijuana, heroin, and cocaine because of their psychotropic effects. In the 1960s, the United States began to take international action to enforce drug prohibition (Andreas and Nadelman 2006). The major focus was on the Colombia Cali and Medellín cartels and stopping the smuggling of Colombian cocaine to Florida from the Caribbean. Another concern was cross-border smuggling of marijuana and heroin from Mexico. The Drug Enforcement Administration (DEA) was successful in stopping Colombian cocaine smuggling through the Caribbean in the late 1980s and 1990s thanks to an increased naval presence. Colombian cocaine cartels then turned to Mexican smugglers and began using their services, making the U.S.-Mexico border the major route of entry (Payan 2006). Patrick Buchanan, a media commentator, has referred to the change in drug smuggling routes from sea to land as the "Colombianization of Mexico."

Mexican government officials have an informal tradition of overlooking or actively colluding with drug smugglers (Beittel 2009, 7–8). Through the 1990s, the acceptance of bribes was part of a process of accommodation in which the ruling party, the PRI

(Partido Revolucionario Institutional, or Institutional Revolutionary Party) operated in tandem with Mexican DTOs (Velasco 2006; Grayson 2010). From the mid-1980s through 1992, the U.S. government certified the degree to which foreign governments cooperated in stopping drug trafficking (Beittel 2009, 2–3). Under pressure from the United States, Mexican officials participated in crop eradication programs and made some arrests. The working relationship between Mexican and U.S. officials was characterized by mistrust. After 2002, the United States classified countries considered to be ineffective against drug traffickers and associated this effort with sanctions affecting assistance. When Vincente Fox became president of Mexico (2000–2006), his PAN (Partido Acion Nacional, or National Action Party) ended the PRI's 71-year hold on the presidency and political appointments; it also inadvertently disrupted long-term relations of collusion and corruption with drug traffickers (Velasco 2005).

The destabilization of Mexican drug trafficking interorganizational relations and territorial control was an unexpected consequence of the development of a viable two-party system in Mexico, its "democratic transition" (Velasco 2005). Immediately, as Mexico's democratic practice became stronger, President Fox began binational cooperation to suppress drug smuggling. By 2006, some 79,000 Mexicans had been arrested on charges related to drug smuggling (Cook 2007, 3–4). Statistics indicate that low-level drug smugglers and dealers made up 78,831 of the arrests, hit men made up 428, lieutenants 74, financial officers 53, and cartel leaders—the apex of decision making—15. Tijuana DTO leader Francisco Arellano Felix and Gulf DTO leader Osiel Cárdenas Guillén were arrested. Although Guillén was apparently able to continue operations from inside a Mexican prison for a time, attempts by rival drug organizations to control lucrative trafficking routes (such as Interstate Highway 35 in Texas) led to turf wars characterized by spiraling violence and brutality in Mexican border cities and, later, throughout Mexico (Cook 2007, 11–12).

In 2005, conflict over control of the "plaza" (territory) between rival Gulf and Sinaloa DTOs in Nuevo Laredo and Laredo, among the principle ports of entry for cocaine and marijuana, led to the deaths of 135 people. Most of these dead were cartel members, but a journalist, city council member, 13 Mexican police, and the Nuevo Laredo police chief were also killed. In response, President Fox sent federal Mexican troops to Nuevo Laredo to control the situation. Texas Governor Rick Perry sent additional police and equipment to aid the border cities. Both U.S. and Mexican officials have become concerned that the major drug DTOs pose a threat to border security. In September 2008, a total of 175 arrests were made in Mexico, the United States, and Italy to control the violent Gulf drug cartel.

Felipe Calderón, the current Mexican president (2007–present), has increased law enforcement activity against DTOs and narco-terrorism. He considers drug trafficking–related violence a threat to Mexico's national stability (Beittel 2009, 3). The drug-related lawlessness has spread geographically, escalated, and incorporated terrorist elements.

Narco-terrorism is defined as using terror as a tactic to increase drug trafficking profits (Casteel 2003). In reference to other international drug trafficking, the concept of narco-terrorism also refers to using profits from drug trafficking, such as heroin sales, to fund terrorism. At present, Mexican DTOs have not formed ties to international terrorists.

Mexican drug trafficking organizations have used hit men and gang-precipitated torture and violence to intimidate the public and government officials (Cook 2007, 6–9; Beittel 2009, 5–6). The Mexicans who have been killed include elected government representatives, journalists, police chiefs and other law enforcement officers, prosecutors, and civilians of all ages. Pamela L. Bunker, Lisa J. Campbell, and Robert J. Bunker (2010, 145–146) of the Counter-OPFOR Corporation state: "Because many of the police forces and judicial systems in Mexico have been corrupted and compromised and therefore arrest and prosecution rates are extremely low, the probability of ever being brought to justice is almost non-existent for most individuals and groups engaging in killings, torture and beheadings."

Narco-terrorism involves the use of brutality and murder to intimidate the civilian population and authorities. Individuals may be kidnapped for failure to pay drug debts or in order to demand ransom payments. Forms of torture include beatings, knife cuts, breaking bones, sexual abuse, and starvation. Extreme torture includes the use of acid, water, fire, electricity, water boarding, and suffocation (Bunker, Campbell, and Bunker 2010). Prior to homicide or afterward, bodies may be subject to decapitation (*decapitado*), quartering (*descuartizado*), placement in a car trunk (*encajuelado*), wrapping/binding in a blanket (*encobijado*), sealing in a metal storage drum (*entambado*), or depositing in an acid bath (*pozoleado, guisado*) (Bunker, Campbell, and Bunker 2010, 146). Drug-related killings in Mexico increasingly involve short-term torture such as inflicting nonfatal wounds prior to death. These tactics involve the intended effect of intimidation for political or economic gain, but they can also be ritualized, as when narco-cults (*narco-cultos*) carry them out in a ritualized manner connected to a plea for divine intercession, as when a sacrifice is made to Saint Death (*La Santa Muerte*). In Mexico, headless or tortured bodies are being left in public places connected to marijuana growing regions or cartel-controlled areas. Law enforcement officers who turn down bribes may find their names on lists attached to corpses.

The Mexican population perseveres and has taken action against the escalating violence, which can result in death and injury for civilians. In August 2008, a massive public protest against the violence involving hundreds of thousands of marchers occurred in Mexico City and throughout Mexico. In 2010, Mexican government estimates were that, since 2007, some 22,700 people had been killed (Castillo 2010). In 2007, a total of 2,837 were murdered. By 2009, the total killed reached 9,635, tripling the death toll. The border city of Ciudad Juarez has reported 4,324 deaths since 2006, the highest rate in Mexico. From January to March 2010, the death toll was 3,365—violence of epidemic proportions. Deaths in Ciudad Juarez included a pregnant employee of the

U.S. Consulate, her husband, and another husband of a consulate employee (Lacey and Thompson 2010).

Drug trafficking and unauthorized immigration are discussed as issues of lawlessness along the U.S.-Mexico border, but most people in the region are law-abiding. The chief problem has been that, as U.S. border enforcement has escalated, the smuggling of both drugs and people has become more sophisticated. In Mexico, destabilization of relations between drug trafficking organizations (owing to the arrest of leaders and competition for territory) is given as the chief reason for the increased violence. Nevertheless, DTOs are sufficiently powerful and well armed to engage in violent conflict with law enforcement and the Mexican military. It is questionable whether the death toll should be seen as evidence of success from the pitting of drug traffickers against one another because of the degree of harm to the civilian population as well as economic consequences, such as loss of tourism and trade for Mexico.

This situation would not occur if there were not a demand for drugs in the United States and a lack of economic opportunity in Mexico. President Barack Obama (2009–present) and Hillary Clinton, his secretary of state, have acknowledged that the United States shares responsibility for the problem because of the high demand for drugs in the country and the relative ineffectiveness of current programs in quelling that demand.

DRUG TRAFFICKING AND GLOBAL INEQUALITY AT THE U.S.-MEXICO BORDER

Democrats and Republicans are united in using law enforcement as a means to combat drug trafficking, but they do not emphasize the role of global inequality between the United States and Mexico as a factor in this trade. Drug trafficking is estimated to be the most profitable form of organized crime worldwide. It is thought that some $80 billion per year is spent on drugs crossed through the U.S.-Mexico border region. Although the exact figure spent is unknown, U.S.-Mexico inequalities fuel this multibillion-dollar trade. Mexico has a high unemployment rate and a low minimum wage. The demand for drugs in the United States is high; there are an estimated 20 million users who are willing to pay high prices for drugs. The wage disparity between the United States and Mexico makes working for drug cartels attractive for many young Mexican men in border communities. Many of the recruits are low-skilled laborers who have a hard time finding jobs. Drug trafficking skills—physical aggression, playing the role of a bodyguard, using a gun, and driving a vehicle across the border—can be learned quickly. The easy money earned from smuggling is much greater than what is available from legitimate employment in Mexico. It is actually surprising that the vast majority of Mexicans resist involvement in this criminal enterprise.

Drug Trafficking Organizations and Distribution Networks

In the 1980s, Mexico had one drug trafficking organization, headed by Felix Gallardo. When drug trafficking in the Caribbean was brought under control, Colombian cocaine traffickers joined forces with Mexicans. As the war on drugs heated up along the border, interorganizational disputes marred the operation of the border-wide cartel, and Gallardo (in prison) ordered it split into four separate organizations: the Gulf Cartel (Southeast Texas), the Juarez Cartel (Southwest Texas), the Sinaloa Cartel Federation (Texas, New Mexico, and Arizona), and the Tijuana Cartel Federation (California) (Cook 2007, 1–2). Originally, the arrests of Tijuana Federation leader Javier Arellano Felix and Guild Cartel leader Osiel Cárdenas Guillén led to an intercartel alliance. Later, the U.S. Project Reckoning heavily disrupted the U.S. and European transport networks (U.S. Attorney, Southern District of New York 2008). Abroad, 600 arrests were made and $72 million in currency was taken. Inside the United States, 12,000 kilograms of cocaine, $60 million in currency, and 750 arrests connected to 750 distribution networks were major outcomes. Today, the territory of the Gulf Cartel is chiefly controlled by Los Zetas, a paramilitary group of former Mexican military who served as enforcers for a period of time. Mexican drug organizations are known to operate in 195 cities and to send drugs to 230 cities.

Specialized professionals and high technology are stepping up the response of trafficking organizations—and the potential for violent conflict. According to the FBI, the Zetas, highly trained former Mexican soldiers, have become involved in smuggling both drugs and people into the United States, probably displacing the Gulf Cartel. The Zetas have surveillance operatives, checkpoints, and high technology. They have been linked to the possibility of smuggling special-interest entrants into the United States—that is, individuals who may or may not be connected to terrorism who originate from sending countries identified as having terrorist organizations.

The Calderón government has confiscated 70 tons of cocaine, 4,000 tons of marijuana, and 43,000 tons of methamphetamine precursor ingredients (Berrong 2009). The Mexican cartels have been able to thwart every effort to stop trafficking because they are flexible and adaptive organizations. Tony Payan (2006), an international relations and foreign policy specialist, characterizes the war on drugs at the border as a cat-and-mouse game in which the United States has tactical victories such as drug seizures and arrests but is losing in the conflict. U.S. escalation in personnel and technology has always resulted in DTO adaptation and a continued supply of drugs.

Drug Transport Methods at Border Crossings and Border Checkpoints

Heroin and cocaine have been too valuable to risk crossing in between ports of entry, as U.S. Border Patrol (USBP) agents could become aware and seize the load. As a result, most drugs are crossed through ports of entry. Social networks built on corruption on both sides of the border facilitate drug transport. Attempts are made to bribe U.S.

Customs officers, sheriffs, and law enforcement personnel, and some give in to the offer of large sums of money.

DTOs often use vehicles rather than human carriers ("mules") because it is impossible for customs to inspect every vehicle and item that crosses the border. The Bureau of Transportation Statistics indicates that the following numbers of vehicles, cargo containers, and individuals crossed in 2009: 2,432,495 trucks, 1,555,466 loaded truck containers, 146,058 loaded rail containers, 6,348 rail passengers, 135,775 buses, 1,445,200 bus passengers, 40,576,475 personal vehicles, 91,139,705 vehicle passengers, and 23,538,289 pedestrians. Checking is done at random or on the basis of customs officers' intuition, depending on signs of anomalies or driver nervousness. All roads located past the border leading into the U.S. interior also have checkpoints that are frequently manned by officers with drug-sniffing dogs. Payan indicates that many of the vehicles that cross drugs go through points of entry (POEs) rather than between them. It is estimated that 70 percent of drugs are crossed through the southwestern border in this way. Mexico has become the major supplier of marijuana, brown heroin, and Colombian cocaine.

In the past, cars, vans, and pickup trucks have been the favorite vehicle for crossing drugs. Today, this method is used by small operators. Hidden compartments in ordinary places in the vehicle are created. The drugs are then basted with masking scents tested by the cartels' own drug-sniffing dogs. Vehicles are crossed in two ways. The first involves going to the checkpoint and hoping that drug-sniffing dogs, the reaction of the driver to stress, and the thoroughness of the inspection will not expose the drugs. The second method is to cross cars in groups and let one be caught, distracting officials from the others. Often workers are placed in locations where they can see if an inspector is distracted. But the best way to smuggle drugs is to bribe a U.S. officer working at a port of entry to let drugs pass through. Several cases in which law enforcement has been bribed turn up every year. A single corrupt official can allow massive quantities to be crossed, preventing other drug enforcement activities from stopping the flow.

Since the passage of the North American Free Trade Agreement, tractor trailer trucks have been extensively used to transport drugs. This is the preferred method of the largest cartels. The escalation of technologies used in the war on drugs has made it harder to bribe officials because of the risk of being caught. Now the drug cartels must spend millions on bribes in order to find Americans working at ports of entry who will take the risk.

Diversified Organized Crime Tactics

Controlling two types of smuggling, of people and drugs, has allowed the DTOs to use unauthorized migrants as a border-patrol diversion in order to cross drugs in a different area. Undocumented immigrants pay protection money to the cartels; then the cartels divert the immigrants to certain routes designed to attract USBP activity and remove attention from the route through which drugs will be smuggled.

Fencing, National Guard troops, and additional USBP personnel have made it more risky to use traditional drug smuggling routes. There has been a significant increase in the amount of cocaine and marijuana seized. National Guard groups placed along the Arizona border have resulted in a significant increase in detained unauthorized migrants as well. It is plausible that this has cut into the DTOs' profit margins, prompting them to use of alternative methods.

U.S. Border Patrol Confrontations with Cartel Smugglers

The greatest risk that USBP officers take lies in dealing with drug smugglers and trafficking organizations. The USBP makes more drug smuggling arrests than any law enforcement agency, including the Drug Enforcement Administration (DEA). Drug smugglers use violence to avoid arrest and will risk killing USBP officers. In effect, a major activity of the USBP has become drug interdiction rather than immigrant apprehension.

USBP officers' jobs involve working individually in remote regions away from witnesses. In cases of human smuggling, they may face resistance, but drug smugglers may try to kill them. In June 1998, Alexander Kirpnick was shot and killed while attempting to apprehend five marijuana smugglers in the desert hills near Nogales, Arizona. Similar killings occurred in 2008 and 2009.

One issue in confronting drug smuggling is that the USBP is literally outgunned. The drug cartels have access to automatic assault rifles, while each USBP officer has only a revolver. Former Laredo, Texas, Sheriff Rick Flores (2005–2008) points out that smugglers have automatic assault weapons, rocket-propelled grenades, and Kevlar helmets with level-four body armor similar to that of the military.

The violence of drug smugglers' reactions to attempts to stop and arrest them has increased. In the past, the sight of law enforcement would result in smugglers dropping the drugs or abandoning vehicles. Human smugglers would be arrested with the rest of the group. Currently, drug cartels are firing on the USBP, engaging in reckless high-speed chases, and initiating standoffs at the U.S.-Mexico border. The United States has no jurisdiction to pursue any smugglers into Mexico.

DTOs control increasingly sophisticated technology. Spotters using high-power binoculars, and encrypted radios are placed in the mountains. Despite the placement of interior checkpoints, smugglers slip through by crossing private property. The income realized from drugs allows them to invest in high technology, and they have even been able to decipher the USBP's encrypted communication.

Spillover Violence and Unintended Effects of U.S. Border Policy

Both Mexican and U.S. national security is threatened by narco-terrorism. Director of Homeland Security Janet Napolitano believes that drug-related violence in Mexico has the potential to spill over to the United States. Spillover violence incidents include trafficker-to-trafficker homicide and planned attacks on U.S. citizens, officials, or physical

infrastructure (Peters 2009). Since Mexican DTOs have drug distribution networks reaching numerous U.S. cities, such attacks could become widespread. Those attacks that have already occurred in the United States involved mainly border cities. Such incidents have included inter-DTO homicide, kidnapping of smugglers or family members, and attacks on USBP officers. The *National Drug Assessment, 2010* (Department of Justice National Drug Intelligence Center 2009, 16), states that "Direct violence similar to the conflicts occurring among major DTOs in Mexico is rare in the United States." Indirect violence such as kidnappings and DTO conflicts may be more frequent. DTO "discipline" can include kidnapping, beating, torture and murder of organization members who fail to deliver drugs or money. Drug users may be kidnapped if they do not pay. Phoenix, Arizona, reported 267 kidnappings related to drug or human smuggling in 2009 (Department of Justice National Drug Intelligence Center 2009, 16). At present, U.S.-Mexico border cities are not experiencing heightened violence. For example, only 17 murders were reported in El Paso in 2008, and there were 13 through December 25, 2009 (Johnson 2009).

In Mexico, kidnapping is a major problem. Through 2005, hundreds of Mexicans and sixty American citizens were kidnapped (Blumenthal 2005). Drug-related violence includes murder of government officials, journalists, and innocent bystanders. Threats have been made against Americans news media and journalists. DTOs seek to intimidate government, law enforcement, and the media as a way of reducing press coverage and public reaction. The U.S. State Department advises Americans to be alert and take precautions when they are traveling in Mexico.

Peter Andreas (2009), a political scientist, suggests that that there is an unintentional and reinforcing impact of the U.S. attempt to control its southern border with Mexico and the expansion of drug and human smuggling. He refers to this effect as unintentionally symbiotic and points out that the criminal justice complex at the border has been greatly expanded as a result. Throughout most of the 20th century, the southern border has been ineffectively policed and the Immigration and Naturalization Service, as it was then known, now renamed Immigration and Customs Enforcement (ICE) and a part of the Department of Homeland Security, did a largely symbolic job. Today, the worsening of the problem necessitates new strategies that may result in overturning past policy.

Strategies to Address the Problem

The War on Drugs and Expansion of Drug Trafficking

There are two views on whether border security initiatives are curbing drug trafficking. Payan (2006) feels that despite the expansion of USBP and Drug Enforcement administration personnel on the border, the quantity of drugs seized each year continues to increase, along with the total volume of drugs being trafficked. Drug trafficking organizations are so successful at moving product that the price of drugs on the street in urban cities has declined. The federal government's border-control policy has not succeeded

in controlling the cartels. The alternative view, put forth by the House Committee on Homeland Security, is that federal and state efforts to secure the border have resulted in the cartel's current efforts to control human smuggling and enter into extortion, because drug seizures are making inroads on their profits. The controversy over whether the U.S.-Mexico border can be controlled cannot be resolved by examining rates of seizure of drugs, as supply can be increased if seizures are increased. Only information on street prices and availability can resolve this issue, and such data have not been a major concern in the debate over the impact of escalation in border security personnel and technology.

The Mérida Initiative

The United States' primary international program for control of drug trafficking is called the Mérida Initiative (Seelke and Ribando 2009). Mexico, Central America, the Dominican Republic, and Haiti are participants. Issues addressed include drug trafficking, arms smuggling, money laundering, and transnational organized crime. For three years, $1.4 billion in technological assistance and training will be provided. In particular, helicopters, speedboats, and computerized intelligence systems for data sharing were to lead the investment. After an expenditure of $700 million, Congress voted to withhold funds pending review of the program's efficacy (Landler 2009).

Can yet another United States program for control of international trafficking succeed? Drug trafficking through the U.S.-Mexico border has ties with transnational organized crime in Mexico, Central America, the Caribbean, and South America. Developing nations lack the funds, training, and technology to confront drug transit and associated crime. Furthermore, organized crime thrives in ungoverned social space (Velasco 2005; Grayson 2010). Weak national governments need to be strengthened and to gain credibility (Olson and Donnelly 2009). Democratic governments, as opposed to dictatorships, are not considered absolutely essential, but they are seen as being more effective at controlling crime. The widespread bribery and collusion of government and law enforcement officials allows drug trafficking organizations to gain political control. The lower standard of living and salaries increase the attractiveness of criminal offers, especially where law enforcement and judiciaries are weak.

Mexican citizens have protested and reform of law enforcement is occurring in Mexico. When local police proved ineffective owing to bribery and intimidation, the federal police were reorganized as a national police force. As drug-related violence escalated, the Mexican military was brought in. Twenty-four thousand military personnel have been involved in countertrafficking; they are thought to have had some effect in reducing violence, but primarily by displacing it or creating a condition of stalemate (Cook 2007). Local, state, and federal police and increasingly the military have been bribed and even recruited for work with drug trafficking organizations (Velasco 2005, 106–108).

Both police and the military have low salaries and poor working conditions. Less educated applicants are attracted to the low-prestige occupation of law enforcement.

Police are easily corrupted because of their low pay and the Mexican history of corruption, particularly at the municipal and state levels. There is an established social climate that will be difficult to challenge or change without improving salaries and living conditions (Velasco 2005). The Mérida initiative and other U.S. binational programs support the professionalization of Mexican law enforcement.

Efforts are being directed toward reform of Mexico's judicial system. Mexico has an inquisitorial justice system but is enacting reforms that would move it toward adversarial justice, as in the United States (Olson 2008). Prosecution in inquisitorial systems involves evidence collection by prosecutors, who issue recommendations that lead to closed-door verdicts. The individual is *not* presumed innocent until proven guilty. Oral prosecution and defense, cross-examination of witnesses, and defendant access to evidence is limited. People are held until they can establish their innocence. It is thought that Mexico will have switched to an adversarial system of justice by 2015.

President Calderón has strengthened control over the Mexican military, but it is incomplete (Cook 2007; Grayson 2010). Reports of human rights violations point to disappearance, torture, murder, and arbitrary detention (Amnesty International 2009). Amnesty International (2009) documented five cases involving 35 individuals in a period of 12 months during 2008–2009 and has released information on other incidents. It is difficult to prosecute military personnel. Amnesty International (2009, 5) released the following quotation: "If you report us, something worse will happen to you, and no one will do anything to us because we are soldiers." Crimes committed by the military are tried in a separate military judicial system, which may violate the Mexican Constitution. Amnesty International (2009, 22) indicates that

> when abuses are committed by members of the military the response of the state at all levels is ineffective. The failure of both civilian and military authorities to take

ECONOMIC GLOBALIZATION, DRUGS, AND THE BORDER

Drug demand creates pressure at the border, where the United States is trying to exercise sovereignty, prevent the entry of drugs, and conduct trade. Controlling drugs potentially compromises the North American Free Trade Agreement transborder economic connection, which promotes opening the border instead of closing it. In the confusion of apprehending migrants and letting trade goods flow across the border, both drugs and humans have often gotten through.

The logic of securing the border to open it for trade is contradictory. The reason for considering globalization as a factor in the expansion of this problem is that many nations have opened their borders to increased trade and tourism, generating new criminal opportunities. The U.S.-Mexico border smuggling issue is a part of a larger global crime nexus in which powerful international organized crime syndicates operate. The linkage between Colombian cocaine cartels and Mexican drug traffickers reflects globalization.

> timely effective action to prevent and punish these grave human rights violations is tantamount to complicity. In some instances, the lack of cooperation by some military and civilian authorities with relatives or other relevant authorities, such as court officials or members of the [National Human Rights Commission] trying to establish truth and justice may even amount to concealment.
>
> Steps taken within the military justice system to investigate these abuses and hold those responsible to account do not constitute a real intent to bring the perpetrators to justice. The lack of independence and transparency of the military justice system ensures victims and relatives are frequently denied access to justice. Consequently Mexico appears to be unwilling or unable genuinely to carry out investigations and prosecutions against its military.

The United States will withhold 15 percent of Mérida funding if human rights violations by the military are not efficaciously handled (Seelke and Ribando 2009). In general, equity and transparency are needed to increase the credibility of the Mexican justice system and reduce corruption within it (Olson 2008). The Mérida initiative seeks to provide resources for investigating and prosecuting crime related to drug trafficking. Unfortunately, Mexican law enforcement lacks scientific and legal skills. Organized criminals are present within all sectors of the criminal justice system, from patrol to prison, and without oversight.

Controversy ensued when the U.S. Joint Forces Command (2008, 36) labeled Mexico a potential "failing state." Mexican President Calderón and other officials reacted extremely negatively to this assertion and maintained that there is no area in Mexico that is not under state control. Secretary of State Hillary Clinton (Clinton 2009) stated that she does not believe that Mexico has any "ungovernable territories." Mexican authorities maintain that DTOs are weakening and that they are turning on each other owing to diminishing market share (Associated Press 2009). Jane's Information Group (2009) has taken the position that drug traffickers only need to subvert the state through corruption rather than defeat it.

Mexico, a developing country with a limited budget, has a power asymmetry with the United States. This asymmetry contributes to the drug interdiction issue, because Mexico sees U.S. intervention as a challenge to its national sovereignty. Mexico resists any U.S. troop involvement on its soil. In Latin America, the United States is perceived as having a unilateral drug strategy rather than taking part in cooperative multinational efforts. The Obama administration inherited the Mérida initiative and is changing direction. A new emphasis will be placed on developing law enforcement and communities (Thompson and Lacey 2010). Law enforcement training and technology and improved screening of drugs and vehicles at crossing points will be renewed and expanded. The latest concern is building economic opportunity in communities affected by poverty and crime. The biggest shift has been away from military assistance.

Reducing U.S. Drug Demand

In the 1960s, the United States instituted an international drug prohibition policy. President Richard Nixon began the War on Drugs, which critics have considered a damaging policy that undermines U.S. interests in Mexico and other drug exporting nations. In Mexico, efforts have included crop eradication and drug interdiction. A policy debate is being waged over the efficacy of these efforts. Advocates believe that the supply of drugs has been reduced. Critics consider that drug prices are lower than ever, but the U.S. government does not report this fact. The Obama administration is making a departure from the rhetoric of the War on Drugs. On March 25, 2009, Secretary of State Hillary Clinton said: "Clearly what we are doing has not worked.…Our insatiable demand for illegal drugs fuels the drug trade" (2009).

Critics of U.S.-Mexico drug policy believe that demand reduction among U.S. citizens would limit the earnings of drug trafficking organizations. The Obama administration has begun new initiatives for drug treatment and prevention (Hananel 2010) and seeks to abandon the phrase "War on Drugs." Drug Czar Gil Kerlikowski has stated: "Calling it a war really limits your options.…Looking at this both as a public safety problem and a public health problem makes a lot more sense." The Obama plan calls for reducing the number of first-time users by 15 percent over five years and sets other goals for reducing driving under the influence of drugs, chronic drug usage, and drug-related deaths. Community antidrug programs will screen for drug use and mainstream medical facilities will be involved. Health personnel are encouraged to ask about drug use.

The debate on how to control drug use includes the idea of harm reduction through legalization. Norm Stamper, a former Seattle police chief, favors the legalization of drugs through state-run stores or distribution by registered pharmacists (Kristof 2009). Nicholas D. Kristof, *New York Times* op-ed columnist, points out that the drug war had three major impacts: (1) it greatly increased drug users in prison populations from 41,000 in 1980 to 500,000 in 2009; (2) it empowered organized crime and terrorists who make billions in profit; and (3) the money spent on law enforcement, $44.1 billion, could be spent in other ways, including treatment and prevention. It has been argued that drug treatment is more cost-effective than interdiction.

Mexico has preceded the United States in adopting harm reduction by passing a law to decriminalize possession of small amounts of drugs. Individuals will not be prosecuted but instead referred to drug treatment programs. Individuals will be required to enter a treatment center if they are found in possession of drugs a third time. This measure is in response the development of an internal drug addiction problem and designed to free up prison space for dangerous criminals. Critics of decriminalization argue that it will increase addiction.

In 2010, President Obama authorized 1,200 National Guard troops for the border and sought increased funds for border law enforcement (Archibold 2010). The *New York*

Times responded in an editorial that "adding a thousand or so border troops won't stop the cartels or repeal the law of supply and demand" ("Editorial" 2010).

Conclusion

Drug trafficking and the associated violence is the major problem at the U.S.-Mexico border. Every escalation in border security by U.S. Customs and Border Patrol, the DEA, and other federal agencies has been met with adaptation by the drug cartels. Although many officials in Mexico and some law enforcement officers in the United States have been bribed, both Mexico and the United States are increasingly choosing to confront the cartels. Mexico estimates that the trade is based on 20 million users in the United States. The law enforcement approach to the war on drugs has not reduced the demand. This suggests that reducing the motivation of American citizens for using drugs and rehabilitating drug users would be an alternative way of reducing demand.

The United States has engaged in many wars: a war on drugs, a war on terrorism, and conflict in Afghanistan and Iraq. Has it won any of these wars? What are the criteria for deciding? The United States is pursuing its strategy of constantly escalating a quasi-military struggle for control of the Mexican border. This strategy has never worked, and Mexican drug trafficking organizations adapt to change more rapidly than the Department of Homeland Security bureaucracy is able to do. It is unlikely that this problem will soon be resolved in the future any more than stopping cocaine smuggling in the Caribbean to Florida ended Colombian drug smuggling.

The United States may have waited too long to deal with the demand for illicit drugs in the United States. The billions of profit from drugs paid into Mexico, a country with a great deal of poverty, provide the motivation to engage in illegal trafficking. Drug lords are highly adaptable in finding ways to provide drugs, start habits, and maintain fixes. Imprisonment has not slowed demand. It remains to be seen if the prevention and treatment strategy of the Obama administration can be more effective.

See also **Border Fence; Human Smuggling and Trafficking; War on Drugs (vol. 3)**

Further Reading

Amnesty International, *Mexico, New Reports of Human Rights Violations by the Military.* Wash ington DC: Amnesty International, 2009. http://www.amnesty.org/en/library/asset/AMR41/058/2009/en/e1a94ad6–3df1–4724-a545-f0b93f39af69/amr410582009en.pdf

Andreas, Peter, *Border Games: Policing the U.S.-Mexico Divide,* 2d ed. Ithaca, NY: Cornell University Press, 2009.

Andreas, Peter, and Ethan Nadelmann, *Policing the Globe: Criminalization and Crime Control in International Relations.* New York: Oxford University Press, 2006.

Archibold, Randall C., "Obama to send up to 1,200 Troops to Border." *New York Times* (May 25, 2010). http://www.nytimes.com/2010/05/26/us/26border.html

Associated Press, "Mexican Cartels Use Migrants as DEA Decoys: Drug Smuggling Rings Take Over Human Trafficking Routes." May 1, 2007. http://www.cbsnews.com/stories/2007/05/01/national/main2746396.shtml

Beittel, June S., "Congressional Research Report for Congress: Mexico's Drug Related Violence." May 27, 2009. http://www.fas.org/sgp/crs/row/R40582.pdf

Berrong, Stephanie, "Cooperation on the Border." *Security Management* (April 2009). http://www.securitymanagement.com/article/cooperation-border-005427

Blumenthal, Ralph, "Texas Town Is Unnerved by Violence in Mexico." *New York Times* (August 11, 2005).

Buchanan, Patrick, *State of Emergency: The Third World Invasion and Conquest of America.* New York: St. Martin's Press, 2006.

Bunker, Pamela L., Lisa J. Campbell, and Robert J. Bunker, "Torture, Beheadings and Narcocultos." *Small Wars and Insurgencies* 21 (2010): 145–178.

Campbell, Howard, *Drug War Zone: Frontline Dispatches from the Streets of El Paso and Juárez.* Austin: University of Texas Press, 2009.

Casteel, Steven W., "Narco-Terrorism, International Drug Trafficking and Terrorism—A Dangerous Mix." Statement before the U.S. Senate Judiciary Committee. May 20, 2003. http://www.usdoj.gov/dea/pubs/cngrtest/ct052003.html

Castillo, Eduardo, "22,700 Killed in Drug Related Violence in Mexico Since '06." *Houston Chronicle* (April 13, 2010).

Chaddock, Gail Russell, "Congress Takes Aim at Modern-Day Slavery: Traffickers in Human Cargo for Sex Trade or Sweatshops Will Face Tougher Penalties." *Christian Science Monitor* 2 (2000).

Clinton, Hillary Rodham, U.S. Department of State. "Remarks with Mexican Foreign Secretary Patricia Espinosa after Their Meeting." Mexico City, Mexico, March 25, 2009.

Cook, Coleen W., *Congressional Research Service Report: Mexico's Drug Cartels.* October 16, 2007. http://ftp.fas.org/sgp/crs/row/RL34215.pdf

"Editorial: Troops and the Border." *New York Times* (May 27, 2010). http://www.nytimes.com/2010/05/28/opinion/28fri2.html

Grayson, George W., *Mexico: Narco-Violence and a Failed State.* New Brunswick, NJ: Transaction Publishers, 2010.

Hananel, Sam, "Obama Shifts Strategy Away from War on Drugs: Will Now Focus on Prevention and Treatment." *Boston Globe* (May 12, 2010). http://www.boston.com/news/nation/washington/articles/2010/05/12/obama_shifts_strategy_away_from_war_on_drugs

House Committee on Homeland Security, *Interim Report: A Line in the Sand: Confronting the Threat at the Southwest Border.* Washington DC: House Committee on Homeland Security. http://www.house.gov/sites/members/tx10_mccaul/pdf/Investigaions-Border-Report.pdf

Jane's Information Group, "Security Mexico." February 2009. http://www.janes.com/

Johnson, Kevin, "Violence Drops in U.S. Cities Neighboring Mexico." *USA Today* (December 28, 2009). http://www.usatoday.com/news/nation/2009–12–27-Mexico-border-violence_N.htm?csp=34&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+usatoday-NewsTopStories+%28News+-+Top+Stories%29

Kristof, Nicholas, "Time to Legalize Drugs?" *New York Times* (June 13, 2009). http://kristof.blogs.nytimes.com/2009/06/13/time-to-legalize-drugs

Lacey, Marc, "In Mexico, Ambivalence on a Drug Law." *New York Times* (August 23, 2009). http://www.nytimes.com/2009/08/24/world/americas/24mexico.html?scp=16&sq=Mexican%20drug%20cartels&st = cse

Lacey, Marc, "In Mexican Drug War, Investigators are Fearful." *New York Times* (October 16, 2009). http://www.nytimes.com/2009/10/17/world/americas/17juarez.html?partner=rss&emc=rss

Lacey, Marc, and Ginger Thompson, "Two Drug Slayings in Mexico Rock U.S. Consulate." *New York Times* (March 14, 2010). http://www.nytimes.com/2010/03/15/world/americas/15juarez.html

Landler, Mark, "Clinton Says U.S. Feeds Mexican Drug Trade." *New York Times* (March 25, 2009). http://www.nytimes.com/2009/03/26/world/americas/26mexico.html

Napolitano, Janet, "Napolitano's Testimony before Senate Homeland Security and Governmental Affairs Committee, Southern Border Violence: Homeland Security Threats, Vulnerabilities, and Responsibilities." Council on Foreign Relations. March 25, 2009. http://www.cfr.org/publication/18945/napolitanos_testimony_before_senate_homeland_security_and_governmental_affairs_committee_southern_border_violence.html

National Drug Intelligence Center, National Drug Threat Assessment 2009. December 2008. http://www.usdoj.gov/ndic/pubs31/31379/index.htm

Olson, Eric, "Six Key Issues in U.S.-Mexico Security Cooperation." Woodrow Wilson Center Mexico Institute. 2008. http://www.wilsoncenter.org/news/docs/Olson%20Brief.pdf

Olson, Eric L., and Robert Donnelly, "Report from the U.S.-Mexico Security Cooperation Working Group and A Conference on International Experiences in Combating Organized Crime: Confronting the Challenges of Organized Crime in Mexico and Latin America." 2009. http://www.wilsoncenter.org/news/docs/Confronting%20Challenges%20of%20Organized%20Crime-%20Eric%20Olson%20Robert%20Donnelly.pdf

Payan, Tony, *The Three U.S.-Mexico Border Wars: Drugs, Immigration and Homeland Security.* Westport, CT: Praeger Security International, 2006.

Peters, Katherine McIntire, "DEA: Mexican Drug Violence is a Sign of Progress, Not Failure." *Government Executive* (April 15, 2009). http://www.govexec.com/dailyfed/0409/041509kp1.htm

Richardson, Chad, *On the Edge of the Law: Culture, Labor and Deviance on the South Texas Border.* Austin: University of Texas Press, 2006.

Seelke, Claire Ribando, Congressional Research Service Report for Congress: Merida Initiative for Mexico and Central America: Funding and Policy Issues, August 21, 2009. http://www.wilsoncenter.org/news/docs/CRS%20Mérida%20Initiative%20for%20Mexico%20and%20Central%20America%20Funding%20Policy%20Issues.pdf

Sele, Andrew, "Money, Guns and Drugs: Are U.S. Inputs Fueling Violence on the U.S.-Mexico Border?" Testimony by Andrew Sele to the House Subcommittee on National Security and Foreign Affairs. March 9, 2009. http://nationalsecurity.oversight.house.gov/documents/20090313115456.pdf

Sheridan, Mary Beth, "Clinton: U.S. Drug Policies Failed: Fueled Mexico's Drug War." *Washington Post* (March 26, 2009). http://www.washingtonpost.com/wp-dyn/content/article/2009/03/25/AR2009032501034.html

Thompson, Ginger, and Marc Lacey, "U.S. and Mexico Revise Joint Anti-Drug Strategy." *New York Times* (March 23, 2010). http://www.nytimes.com/2010/03/24/world/americas/24mexico.html

U.S. Attorney, Southern District of New York, "175 Alleged Gulf Cartel Members and Associates Arrested in Massive International Law Enforcement Operation." September 17, 2008. http://www.usdoj.gov/usao/nys/pressreleases/September08/projectreckoningpr.pdf

U.S. Joint Forces Command, "The Joint Operating Environment 2008: Challenges and Implications for the Future Joint Force." December 2008. http://www.jfcom.mil/newslink/storyarchive/2008/JOE2008.pdf

Velasco, Jose Luis, *Insurgency, Authoritarianism and Drug Trafficking in Mexico's "Democratization."* New York: Routledge, 2005.

DWI AND DRUG TESTING

Angela Taylor

Policies that target driving while intoxicated (DWI) or that permit so-called suspicionless drug testing of specified groups (employees, students) demonstrate the conflict between promoting public health and safety and constricting individual liberty and privacy *(Skinner v. Railway Labor Executives' Association* 1989). Anti-DWI laws are programs designed to reduce the damage caused by the mix of alcohol and driving, which kills and injures thousands of Americans each year. Mass drug testing policies, whether by employers or in schools, are viewed by advocates as means of ensuring well-being and integrity in workplace and academic settings, with the added bonus of discouraging drug use generally.

Opponents of these mass testing policies are concerned, for example, about the effects on certain constitutional rights. One scholar has noted that changes in judicial conceptions of the proper scope of government power have occurred in the wake of attempts to regulate traffic (Laurence 1988, 136–166). This is nowhere more evident than in the case of anti-DWI policies and is echoed in the case of drug testing policies. In a series of court decisions addressing these policies, constitutional safeguards, particularly those related to due process and protection against unwarranted search and seizure, have been narrowed. Widespread public outcry about these practices has largely been muted; citizens appear to be willing to trade freedom for safety, or perceived safety, because it is unclear that these policies are the most effective means of mitigating the damages of drug and alcohol use. The full implications of these losses for situations beyond the narrow issues of DWI and drug use have yet to be seen.

Background

DWI policies were enacted against the backdrop of certain facts about use of alcohol and drugs in the United States. It is undeniable that alcohol increases the chances of driving mishaps. In fact, a 0.04 percent blood alcohol concentration (BAC), an amount much less than the current limit of 0.08 percent, can lead to driving errors (Ross 1992, 19). Data from 2008 show that close to one third (32 percent) of U.S. traffic fatalities, or

some 11,773 deaths, are linked to alcohol use (Centers for Disease Control and Prevention 2009). Nevertheless, substantial numbers of individuals report driving after having used alcohol: there are approximately 159 million such incidents each year (Voas et al. 1998, 267–275). Further, only a fraction of those who report DWI are ever arrested for it; recent figures demonstrate an arrest prevalence of approximately 1 percent (Voas et al). Drunk driving is more common among males and those between 21 and 34 years of age. It is more likely to occur at night and on weekends, generally the times when leisure activities take place (Voas et al). Whites, persons of mixed race, and Native Americans most often report driving under the influence, whereas blacks, Hispanics, and mixed-race individuals most often report being arrested (Caetano and McGrath 2005).

Drug-testing polices are part of the arm of drug policy that focuses on prevention, specifically by lowering the prevalence of use in order to decrease its consequences, including addiction, and other negative aspects of use, like accidents, illness, lowered productivity, and so forth. Employer-based drug testing is a common procedure. Most recent data show that 46 percent of workers report that their employers test for drugs (Carpenter 2006). This figure is down from 49 percent in 1997 (U.S. Department of Health and Human Services 2007). Drug tests, generally using urine as the biological matrix, are done for a number of reasons, most often for pre-employment screening, during postaccident investigations or in cases of suspected on-the-job use. Random drug testing is done largely in settings where safety-related testing occurs.

Drug testing expanded from the workplace into schools following concerns over drug use by youth. According to one study, 18 percent of schools engaged in testing, mostly of students in high school (Yamaguchi, Johnston, and O'Malley 2003). This number, valid in 2001, has likely changed in the wake of the 2002 *Board of Education v. Earls* decision, which expanded categories of students who could be tested. Mass drug testing also takes place in the criminal justice system, from pretrial to probation or parole supervision. Such testing has not generated the controversy that other forms have created. This is likely due to the reduction in rights of those subject to criminal penalties.

DID YOU KNOW?

The mandatory guidelines for federal workplace drug testing (which apply to workplaces of both the federal government and government contractors) require an employer to conduct two tests before a urine test can be reported positive for a drug or be considered an adulterated or substituted sample. The first test is referred to as the initial test and second as the confirmatory test.

Source: Substance Abuse and Mental Health Services Administration (SAMHSA). "Analytical Testing Methods" (2005).

Key Events

A major review of alcohol and driving, published in 1968, was the first government document to officially link drunk driving and accidents (Ross 1992, 175). Even so, DWI was seen as basically a traffic problem or a by-product problem of alcohol use (Gusfield 1988, 109–135). This changed in 1980 with the rise of an organization called Mothers against Drunk Driving (MADD), started by Candy Lightner, who lost her 13-year-old to a drunk driver. MADD and similar organizations pushed to make penalties and criminal justice enforcement against drunk drivers more stringent. Drunk driving came to be viewed as a moral problem, with campaigns portraying drunk drivers as villains of the road, thus increasing the public ire directed toward those offenders (Gusfield 1988, 109–135).

The movement was very successful in obtaining changes in DWI and alcohol policies, among them (1) lowering the limit of acceptable blood alcohol for drivers; (2) sobriety checkpoints, which are defined areas where police will check vehicles to see if passengers are intoxicated or have some other alcohol-related violation; (3) administrative suspensions; (4) getting the drinking age raised from 18 to 21; and (5) increased penalties for offenders, mostly for recidivists but also for first-timers (Gusfield 1988, 109–135).

These efforts were facilitated by the ability of the federal government to use its power over state funding of transportation projects to push states into drafting various laws designed to reduce driving under the influence. States were threatened with loss of highway construction funds unless they altered their laws according to federal dictates. Recent efforts in this regard include pushing for a reduction of the acceptable blood alcohol limit to 0.08 percent from 0.10 percent and mandating certain penalties for repeat offenders, including compelling the use of ignition interlocks. These last are devices designed to prevent a car from being turned on unless the driver registers a blood alcohol level below a given amount.

These changes met with some opposition, some of which centered on use of the Breathalyzer, and to the training of officers in discerning driver impairment. This likely reflects the overwhelming influence of "per se" laws (using a zero-tolerance measure), which penalize having a breath alcohol level above a given amount. A casual Internet survey reveals a cottage industry of defense attorneys advertising methods of fighting the test and DWI charges in general. Other challenges came from concern over the penalties, in particular administrative license suspensions and sobriety checkpoints. These wound up in the courts.

How have these policies worked in reducing DWI? The percentage of drunk-driving deaths has gone down in recent years. Some research has linked this to various drunk-driving penalties, most specifically those directed at youth, such as raising the drinking age (Laurence 1988, 136–166). However, it is likely that other factors—for instance, a decline in the use of alcohol—are important as well.

Drug use exploded as a societal concern during the 1980s. This altered focus was linked to a variety of factors, including general concern over crime combined with the heightened use of crime as an issue in elections; the rising cocaine and, later, crack epidemic; and highly publicized incidents (such as the Len Bias cocaine overdose). These factors all contributed to an environment of increased public worry about drug use. Meanwhile, advances in the science and the technology of drug-testing devices made the process quicker and more efficient and thus more feasible to carry out on a mass scale. Arguably, workplace drug testing had its inaugural in 1986, when President Ronald Reagan ordered that government agencies drug-test employees who worked in jobs featuring a high risk of injury. This proclamation ushered in the age of employee drug testing, with drug testing in other arenas to follow (Crowley 1990, 123–139).

As with DWI policies, the use of such tests was questioned, largely by civil libertarians and some drug policy experts. They portrayed the tests as inaccurate and decried their intrusion into personal privacy, noting that the bodily fluids used could provide additional information about the person, from disease status to pregnancy. They also disputed the stated reasons for testing—ensuring safety—arguing that policies that addressed impairment of all kinds (from illicit to licit drugs to fatigue) would be more fruitful (Crowley 1990, 123–139).

How has workplace testing affected drug use? Data from one drug-testing laboratory show a decline in the number of workers testing positive for drugs, from 13.8 percent in 1988 to 4.5 percent in 2004 (Carpenter 2006, 795–810). A recent study argues that workplace tests do affect drug use generally, although less than is often presumed (Yamaguchi 2003).

Key Legal Decisions

Court challenges to DWI and drug-testing policies have resulted in a gradual redrawing of the line between individual freedom and government intrusion. Take, for instance, administrative suspensions, seen by some as a violation of due process, because one's license is taken away at the point of the DUI arrest. The Supreme Court in *Mackey v. Montrym* upheld these with the caveat that the person obtains a hearing shortly after the suspension (1979).

This opened the door to a more severe application of these laws; today, almost all states have laws using administrative suspension to punish the mere refusal to take a breath test (Insurance Institute for Highway Safety 2007). The Supreme Court in *Michigan Department of State Police v. Sitz* upheld sobriety checkpoints, which are effectively suspicionless searches (1990). They reasoned that rather than being a police action, checkpoints feature the state acting in its capacity to regulate public safety and thus are more akin to housing or restaurant inspections than crime fighting.

Regarding drug testing, the Supreme Court in *Skinner v. Railway Labor Executives' Association* ruled in 1989 that monitoring employees involved in "safety sensitive" positions was a state interest overriding the right of individuals not to have their persons

(bodily fluids) seized (via drug test) without probable cause. The Court broadened its interpretation of the government's interest in the case of *National Treasury Employees Union v. Von Raab* to include concerns about customs workers facing promotion into positions that placed them at great risk, not for safety violations but for personal corruption owing to increased contact with drugs in large quantities (1989). These two cases were cited as precedent in upholding drug testing of students, first in *Vernonia School District v. Acton* (1995), in which random drug testing of student athletes was approved, and then in *Board of Education v. Earls* (2002), which gave the nod to a program in Oklahoma that randomly tested all students involved in extracurricular activities.

What is notable about these court decisions is the basis on which they were decided. Specifically, these policies were upheld as promoters of health and safety and on the basis of administrative rather than criminal justice considerations (Crowley 1990, 123–139). This is important, as it demonstrates a potential limit to the Court's reach regarding such policies. Evidence for this can be seen by the types of testing plans overturned by the Court, among them a hospital-based program that tested pregnant women, with positive results immediately provided to law enforcement for purposes of prosecution (*Ferguson v. City of Charleston* 2000), and a Georgia law that used drug testing as a condition for candidacy for local office (*Chandler v. Miller* 1997).

Drugged Driving

One topic that could loom large in future discussions of both DWI and drug-testing policy concerns the issue of drugged driving, or driving under the influence of drugs (DUID). Although it has a low prevalence rate (approximately 5 percent of those from a 2003 Substance Abuse and Mental Health Services Administration survey admitted to drugged driving, versus roughly 16 percent who admitted to DWI) (Substance Abuse and Mental Health Services Administration 2003), it has emerged as the next step in the evolution of concern over the negative effects of substance use. Recent attention speaks to a push to make drugged driving the next arena in the fight over automobile safety (Leinwand 2004; Armentano 2005).

Compared with the case for alcohol use, there is little science linking specific levels of drug use to impairment or to car accidents, making solutions to the drugged driving problem more difficult to enact. Most states have laws prohibiting DUID. Most define the offense based on actual impairment; however, several states define the offense based on per se grounds. There is potential for fresh court challenges based on the enforcement of those laws, particularly if authorities criminalize the presence of substances (marijuana metabolites, for instance) with no psychoactive impact whatsoever, as has been done in some cases.

Drugged driving is also important because it provides a friendly setting for the use of alternative—that is, non–urine based—drug-testing technologies, in particular those using saliva. Saliva tests have the potential to capture current intoxication and thus to indicate current impairment (Cone 1997). Some European countries have conducted

DID YOU KNOW?

According to the Institute of Behavior and Health, supported by data from the 2007 National Roadside Survey:

- Up to 20 percent of automobile crashes in the United States are caused by drugged driving. This translates into about 8,600 deaths, 580,000 injuries, and $33 billion in damages each year.
- Drugs are present more than seven times as often as alcohol among weekend nighttime drivers in the United States, with 16 percent of drivers testing positive for drugs compared with 2 percent testing at or above the legal limit for alcohol.

Source: "Drugged Driving: A National Priority." http://druggeddriving.org

evaluation studies of saliva tests for roadside testing of drugged drivers, with mixed success (Roadside Testing and Assessment). Because they are less intrusive than urine testing, such tests are very attractive for most drug-testing goals. Additionally, the technology can easily be converted for use in testing surfaces for the presence of drugs. Such devices are being evaluated for use in schools (McFarland 2006).

The increasing prominence of alternative testing comes in the context of a reduction in employer drug testing, possibly owing to concerns over cost. Some view the push for roadside testing as a cynical attempt to improve the flagging fortunes of the drug testing industry. Others have seen it as a possible boon to public safety. One thing does remain evident: conflicts over testing policies and the challenges they pose to individual freedom are far from over.

See also **Search Warrants; Addiction and Family (vol. 3); Drugs (vol. 3)**

Further Reading

Armentano, Paul, "Drug Test Nation." *Reason* (February 12, 2005). http://www.reason.com/news/show/32881.html

Board of Education v. Earls, 122 S.Ct. 2559 (2002).

Caetano, Raul, and Christine McGrath, "Driving while Intoxicated (DUI) among U.S. Ethnic Groups." *Accident Analysis and Prevention* 37 (2005): 217–224.

Carpenter, Christopher S., "Workplace Drug Testing and Worker Drug Use." *Health Services Research* 42, no. 2 (2006): 795–810.

Carruth, Bruce et al., *Assessment and Treatment of the DWI Offender.* New York: Routledge, 2002.

Centers for Disease Control and Prevention, "Impaired Driving Fact Sheet." 2009. http://www.cdc.gov/MotorVehicleSafety/Impaired_Driving/impaired-drv_factsheet.html

Chandler v. Miller, 520 U.S. 305 (1997).

Cone, E. J., "New Developments in Biological Measures of Drug Prevalence." In *The Validity of Self-Reported Drug Use: Improving the Accuracy of Survey Estimates,* NIDA Research Monograph 167, ed.

Lana Harrison and Arthur Hughes. Washington, DC: U.S. Department of Health and Human Services, 1997. http://www.nida.nih.gov/pdf/monographs/monograph167/108–129_Cone.pdf

Crowley, Donald W., "Drug Testing in the Rehnquist Era." In *Images of Issues: Typifying of Contemporary Social Problems,* ed. Joel Best. New York: Walter de Gruyter, 1990.

Ferguson v. City of Charleston, 532 U.S. 67 (2000).

Gusfield, Joseph, R., "The Control of Drinking and Driving in the United States: A Period in Transition." In *Social Control of the Drinking Driver,* ed. Michael D. Laurence, John R. Snortum, and Franklin E. Zimring. Chicago: University of Chicago Press, 1988.

Insurance Institute for Highway Safety, "DUI/DWI Laws." Insurance Institute for Highway Safety, Highway Loss Data Institute, 2007. http://www.iihs.org/laws/state_laws/dui.html

Jacobs, James, *Drunk Driving: An American Dilemma.* Chicago: University of Chicago Press, 1992.

Karch, Steven B., *Workplace Drug Testing.* Boca Raton, FL: CRC Press, 2007.

Laurence, Michael D., "The Legal Context in the United States." In *Social Control of the Drinking Driver,* ed. Michael D. Laurence, John R. Snortum, and Franklin E. Zimring. Chicago: University of Chicago Press, 1988.

Leinwand, Donna, "Growing Danger: Drugged Driving." *USA Today* (October 21, 2004). http://www.usatoday.com/news/nation/2004–10–21-cover-drugged-driving_x.htm

Mackey v. Montrym, 443 U.S. 1 (1979).

McFarland, Art, "A New Weapon to Detect Drugs in Schools." 7Online.com, *WABC-TV News.* November 13, 2006. http://abclocal.go.com/wabc/story?section=our_schools&id=4757591

Michigan Department of State Police v. Sitz, 496 U.S. 444 (1990).

National Highway Traffic Safety Administration (NHTSA), *Countermeasures That Work: A Highway Countermeasure Guide for State Highway Safety Offices.* Washington, DC: NHTSA, 2007.

National Treasury Employees Union v. Von Raab, 489 U.S. 656 (1989).

Roadside Testing and Assessment, http://www.rosita.org

Ross, H. Laurence, *Confronting Drunk Driving: Social Policy for Saving Lives.* New Haven, CT: Yale University Press, 1994.

Sawvel, Patty Jo, *Student Drug Testing.* Boston: Cengage Gale, 2006.

Skinner v. Railway Labor Executives' Association, 489 U.S. 602 (1989).

Substance Abuse and Mental Health Services Administration, *Driving under the Influence among Adult Drivers.* Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2003. http://www.oas.samhsa.gov/2k5/DUI/DUI.pdf

U.S. Department of Health and Human Services, Office of Applied Studies, "Worker Drug Use and Workplace Policies and Programs: Results from the 1994 and 1997 National Household Survey on Drug Abuse" (2007). http://www.oas.samhsa.gov/NHSDA/A-11/WrkplcPlcy2–06.htm#P136_7936

Vernonia School District v. Acton, 515 U.S. 646 (1995).

Voas, Robert B., et al., "Drinking and Driving in the United States: The 1996 National Roadside Survey." *Accident Analysis and Prevention* 30 (1998): 267–275.

Woody, Robert Henley, *Search and Seizure: The Fourth Amendment for Law Enforcement Officers.* Springfield, IL: Charles C. Thomas, 2006.

Yamaguchi, Ryoko, Lloyd D. Johnston, and Patrick M. O'Malley, "Relationship between Student Illicit Drug Use and School Drug-Testing Policies." *Journal of School Health* 73 (2003): 159–164.

E

EXPERT WITNESS TESTIMONY

Allison M. Cotton

The purpose of expert witness testimony is to provide findings of fact for the decision-making process of semijudicial or judicial bodies or to provide the various courts of law with factual information on which to base a resolution, ruling, or verdict (Dorram 1982). The controversies surrounding the use of expert witnesses and expert testimony may revolve around issues such as whether experts may be abusing their power to influence the outcomes of adjudication, be providing better evidence than lay persons, or be speaking on matters relevant to cases that are outside of their expertise, but the controversies are not limited to these issues. Before an individual may be allowed to offer opinion testimony as an expert, however, it must be established not only that the subject of the opinion is proper for expert testimony but also that the individual offering the opinion is "a person skilled at touching the matter of inquiry" (Gothard 1989).

Expert testimony today is very much like a corrida, the traditional bullfight. It has precisely prescribed rituals. The beginning, which is the bailiff's opening statement to the public to rise upon the entrance of the judge, is like the music of the bullfight. The ending, like the dragging out of the bull by the mules, is the moment when the gavel is slammed down. In between, the expert witness is the bull in the arena. The various attorneys entitled to cross-examine will treat him or her exactly as a bull is treated—although in this case the pics, lances, and swords are metaphorical. Just as the traditional bullfight has established stages, so does the proper expert testimony. Stage 1 is the swearing in and identification of the witness, which is followed by stage 2, the statement and

presentation of the witness's professional qualifications. If they are not accepted, that is the end of the testimony. The bull is dead; bring in the next bull (Dorram 1982, 4).

Background

The first documented forensic expert was Antistius, who was asked to examine Julius Caesar's corpse to determine the cause of his death (Meyer 1999). In his opinion, Antistius declared that only one of the 24 sword wounds he suffered actually caused Caesar's death and that it was the sword wound that perforated his thorax (Meyer 1999, 2). In the beginning, then, only medical experts were allowed to provide expert testimony, and then only related to their specific field of practice, such as chemistry, biology, or psychiatry. In fact, experts, specifically medical experts, have been used in English courts since the 14th century and in the common law courts of North America for more than 200 years (Meyer 1999). Since the mid-1980s, social workers have been recognized by courts as having sufficient expertise in several fields of practice and, subsequently, have been qualified as experts in courts of law (Gothard 1989).

Legal Developments

The Federal Rules of Evidence (FRE), the Frye test, and the *Daubert* guidelines form the basis for determining the admissibility of expert medical or scientific testimony (McHenry et al. 2005). Although the FRE are meant to be applied to federal court proceedings, many state courts have adopted them as a guide for dealing with expert witness testimony. Various sections of the FRE outline the "knowledge, skill, experience, training or education" levels required of experts and allow for judicial discretion in determining who constitutes an expert witness and whether the testimony is relevant to jury deliberations (McHenry et al. 2005). Besides, expert testimony must be based on information that is generally accepted in the scientific community, according to *Frye v. United States* (1923), in which the court decided that a technique used for performing a lie detector test must be "generally accepted within the scientific community before expert opinion about data gained from use of the technique is admissible into evidence" (see *Frye v. United States* 1923). The Frye test, then, is used as the legal basis for judges to exclude expert testimony based on information, principles, or opinion not falling within those parameters.

In 1993, the U.S. Supreme Court provided guidelines for expert witnesses in the federal court case of *Daubert v. Merrell Dow Pharmaceuticals, Inc.* when it ruled that expert testimony should be based on information that has been subjected to the scientific method rather than on unsupported speculation (see *Daubert v. Merrell Dow Pharmaceuticals Inc.* 1993). The court also directed trial judges to determine whether expert testimony is relevant and based on valid scientific evidence (*Daubert v. Merrell Dow Pharmaceuticals Inc.* 1993). Further, the Court gave its support to the FRE guidelines, which permit judges to appoint their own independent expert witnesses. In so doing,

FEDERAL RULES OF EVIDENCE

- FRE 702: Authorizes judges to allow the admission of expert testimony when it "will assist the trier of fact to understand the evidence or determine a fact in issue." Under this rule, a witness may be classified as an expert on the basis of knowledge, skill, experience, training, or education.
- FRE 703: Permits an expert to base his or her opinion on information "perceived or made known to him or her at or before the hearing" and establishes that a qualified expert's testimony should be based upon information or data reasonably relied upon by experts in the particular field forming opinions or references on the subject.
- FRE 704: Provides the basis for allowing an expert to offer an opinion on ultimate factual issues, namely, causality.
- FRE 705: Permits an expert witness to offer an opinion "without prior disclosure of the underlying facts or data (on which the opinion is based) unless the court requires otherwise." This rule establishes that the expert witness "may in any event be required to disclose underlying facts or data on cross examination."
- FRE 706: Gives judges the authority to appoint their own independent expert witness to ensure that the expert testimony is relevant and scientifically valid.

Source: Christopher R. McHenry, Walter L. Biffl, William C. Chapman, and David A. Spain, "Expert Witness Testimony: The Problem and Recommendations for Oversight and Reform." *Surgery* 137, no. 3 (2005): 275.

the Court proclaimed that an expert witness must be able to determine the relevant facts of a case, define the standard of care for management of a specific problem, determine whether a physician's action conformed or deviated from the standard of care, and assess the relationship between the alleged substandard care and the patient's outcome (McHenry et al. 2005, 275). The problem with this standard of application, according to Christopher McHenry, is that "very little constraint is applied to the testimony of an expert, often giving him or her inordinate latitude to comment on things that are outside his or her area of expertise" (McHenry et al. 2005, 276). Once the expert has been qualified as such, then the person on the stand, under oath, is allowed to expound upon various topics and issues relevant to the trial, oftentimes without having any brakes applied to his or her utterances, in part because the expert testimony becomes a performance that is not unlike a regular stage performance. What the expert must convey in the course of the performance is that he or she is indeed an expert and that his or her opinion should be taken seriously (Dorram 1982, 51).

Controversies in Expert Witness Testimony

Problems with expert witnesses and expert witness testimony have included the fact that some experts have been allowed not only to testify about medical facts but also to offer

opinions about material issues of the criminal trial. Their opinions may influence decisions involving criminal sentencing or involuntary commitment, for example (Faust and Ziskin 1988). The issue here becomes whether some experts have abused the power to be able to influence the outcome of trials and have turned the criminal trial into a kind of "legalized gamble" (Meyer 1999, 3), particularly because, when judgments have rested on common sense or stereotypes rather than empirical knowledge, professionals have not been shown to outperform lay persons in terms of accuracy; that is, studies show that professional clinicians do not in fact make more accurate clinical judgments than laypersons (Faust and Ziskin 1988, 34).

Another issue that complicates the use of expert testimony is the interrelated specialties that have arisen in the medical field such that experts can defer endlessly to colleagues who possess more specialized knowledge of the issue at bar.

Whereas 50 years ago medicine was still primarily an art rather than a science, medicine is now interlinked with a plethora of technical and scientific occupations. The proliferation of information and specialties has become such that large health care providers now employ specialists in primary care and farm out patients for further specialized treatment. In fact, some specialties have become so compartmentalized that surgeons, chemotherapists, and radiation specialists no longer feel comfortable weighing the advantages of competing treatment modalities for certain types of diseases, such as cancer of the uterus or prostate gland (Meyer 1999, 3).

Additionally, there is some concern over the rather subjective nature of expert testimony, not only because testimony by a so-called expert is often allowed by judges even though other physicians or scientists do not regard the individual's credentials as those of an expert in a particular field (McHenry et al. 2005, 276) but also because the perception exists that an expert can be found to support any point of view as long as the financial compensation is right (McHenry et al. 2005, 276). Moreover, there is no peer review of expert witness testimony to ensure its merit or validity (McHenry et al. 2005, 276). These and other problems not mentioned here contribute to increasing skepticism about the veracity and reliability of expert witness testimony.

Moreover, judges and juries are not bound by expert witness testimony; the jury members (and the trial judge) are free to accept or reject the expert's testimony in whole or in part (Gutheil 1998). Attorneys, therefore, must base the decision of whether to offer expert testimony on the likelihood of that expert being able to connect with the jury—that is, to leave an impression that is favorable to winning the verdict. Jury instructions do not require members to heed the advice of experts; in fact, some jury instructions encourage jurors to exercise their own judgment as to whether to believe or include the opinions of experts in their deliberations.

There is also some evidence to suggest that jurors use intuition, credentials, and mannerisms to determine the veracity of expert witness testimony. Put another way, there is nothing to prevent jurors from using their gut feelings about an expert, the prestige of the institutions from which the expert graduated, or the appearance of the expert on the stand

CRIME LAB ANALYSTS AS EXPERT WITNESSES

Until a U.S. Supreme Court ruling in 2009, *Melendez-Diaz v. Massachusetts,* it was common practice for prosecutors in criminal cases to submit data from crime labs in support of their cases without calling as witnesses the scientists who prepared those data. Under the *Melendez-Diaz* ruling, however, crime lab analysts are required to appear in court and submit to cross-examination.

The decision states that forensic analysts must testify under the Sixth Amendment Confrontation Clause granting defendants the right to confront witnesses against them. Previously analysts could be subpoenaed to court to explain their reports or methodology, but in practice that rarely happened.

In his majority opinion, Justice Antonin Scalia refuted the argument that forensic reports consist of neutral facts. As Scalia observed, "Forensic evidence is not uniquely immune from the risk of manipulation. . . . Confrontation is designed to weed out not only the fraudulent analyst, but the incompetent one as well. Serious deficiencies have been found in the forensic evidence used in criminal trials." Thus, as with expert witnesses generally, an analyst's bona fides or professional judgment may be questioned in cross-examination.

In his dissenting opinion, Justice Anthony M. Kennedy strongly opposed the majority's interpretation of the Confrontation Clause, claiming that the Court had carelessly brushed aside a century of precedent for dealing with scientific evidence. "The Confrontation Clause is not designed, and does not serve, to detect errors in scientific tests." Justice Kennedy asserts. "That should instead be done by conducting a new test. Or, if a new test is impossible, the defendant may call his own expert to explain to the jury the test's flaws and the dangers of relying on it. And if, in an extraordinary case, the particular analyst's testimony is necessary to the defense, then, of course, the defendant may subpoena the analyst."

It was expected that the ruling would create a significant backlog in cases handled by crime labs, as analysts undertake to prepare formal testimony to justify their research results in court.

Sources: Rebecca Waters. "Supreme Court Ruling Requires Crime Lab Analysts to Testify." *Forensic Magazine* (July 1, 2009), http://www.forensicmag.com/News_Articles.asp?pid=595; Jennifer E. Laurin. "*Melendez-Diaz v. Massachusetts, Rodriguez v. Houston,* and Remedial Rationing." *Columbia Law Review Sidebar* 109/82 (August 18, 2009), http://www.columbialawreview.org/articles/i-melendez-diaz-v-massachusetts-i-i-rodriguez-v-city-of-houston-i-and-remedial-rationing

to determine the veracity of the expert's testimony even though these supposed markers of accuracy are potentially prejudicial (Faust and Ziskin 1988). In fact, some evidence suggests that jurors tend to ignore the expert testimony presented on the stand during the trial and, instead, choose to use their own life experiences or common sense to determine guilt or innocence. In such cases, the expert's efforts to persuade may well succeed if it aligns more closely with common belief (Faust and Ziskin 1988).

When asked about the defense's case, one juror said: "I think they tried to prove that he was mentally incapable of understanding what he was doing and brain damaged…which didn't have any effect on me because I know that you can get psychiatrists to argue anything because it's not an exact science." And another juror concluded that "the defense had to show much and they did a good job. We just didn't buy it" (Cotton 2002, 234).

Several efforts to reform the expert witness process have been undertaken in recent decades (between 1987 and 1998) by respected medical organizations; specifically, the American Academy of Pediatrics, the American Academy of Neurologic Surgeons, the American Academy of Orthopedic Surgeons, and the American Medical Association have published guidelines and/or passed resolutions that subject expert witnessing to peer review and disciplinary sanctions (McHenry et al. 2005, 276). In 2004, the American College of Surgeons issued a statement that includes recommended qualifications and guidelines for behavior of the physician who acts as an expert witness (American College of Surgeons 2004, 22–23). In support of the effort to maintain the integrity of expert witnessing, the Collaborative Defense Network for Expert Witness Research, founded in 1984, collects information on and researches the background of expert witnesses (http://www.idex.com). The company offers a wide range of expert witness services, such as testimonial history searches, trial depositions and transcripts, state license discipline searches, and articles by the expert, among others.

Conclusion

In the final analysis, there is much to be said about the need for expert witness testimony in this age of complicated medicine and science. If the jury cannot tell sanity from insanity based on their own experience, for example, then persons must guide them with special expertise in the recognition of this hidden condition (Freemon 2001). Only trained experts can separate the individual who is insane in a partial way, or only with regard to certain subjects, from the normal person (Freemon 2001, 361). Nevertheless, it is expected that the same types of controversial issues surrounding the use of expert witness testimony will persist into the future.

See also **DNA Usage in Criminal Justice; Eyewitness Identification; Insanity Defense**

Further Reading

American College of Surgeons, "Statement on the Physician Activity as an Expert Witness." *Bulletin of the American College of Surgeons* 89, no. 3 (2004): 22–23. http://www.facs.org/fellows_info/statements/st-8.html

Bronstein, Daniel A., *Law and the Expert Witness,* 3d ed. Boca Raton, FL: CRC Press, 2007.

Candilis, Philip J., Robert Weinstock, and Richard Martinez, *Forensic Ethics and the Expert Witness.* New York: Springer 2007.

Cotton, Allison, "Who Is This Defendant? A Study of Capital Punishment and the Effort to Attribute Personality." Ph.D. dissertation, University of Colorado at Boulder, 2002.

Daubert v. Merrell Dow Pharmaceuticals Inc., 509 U.S. 579, 593–7 (1993).

Dorram, Peter B., *The Expert Witness.* Chicago: American Planning Association, 1982.

Faust, David, and Jay Ziskin, "The Expert Witness in Psychology and Psychiatry." *Science* 241, no. 4861 (1988): 31–35.

Fisher, Jim, *Forensics under Fire: Are Bad Science and Dueling Experts Corrupting Criminal Justice?* New Brunswick, NJ: Rutgers University Press, 2008.

Freemon, Frank R., "The Origin of the Medical Expert Witness." *Journal of Legal Medicine* 22 (2001): 349–373.

Frye v. United States, 293 F. 1013. (D.C. Cir. 1923).

Gothard, Sol, "Power in the Court: The Social Worker as an Expert Witness." *Social Work* 34, no. 1 (1989): 65–67.

Gutheil, Thomas G., *The Psychiatrist as Expert Witness.* Washington, DC: American Psychiatric Press, 1998.

Harris, Rebecca C., *Black Robes, White Coats: The Puzzle of Judicial Policymaking and Scientific Evidence.* New Brunswick, NJ: Rutgers University Press, 2008.

McHenry, Christopher R., et al., "Expert Witness Testimony: The Problem and Recommendations for Oversight and Reform." *Surgery* 137, no. 3 (2005): 274–278.

Meyer, Carl, ed., *Expert Witnessing: Explaining and Understanding Science.* Boca Raton, FL: CRC Press, 1999.

Sales, Bruce Dennis, *Experts in Court: Reconciling Law, Science, and Professional Knowledge.* Washington, DC: American Psychological Association, 2005.

EYEWITNESS IDENTIFICATION

Allison M. Cotton

Eyewitness identifications are an important component of U.S. criminal investigation, particularly in those phases of the trial process involving evidence, prosecution, and plea negotiation (Sporer, Malpass, and Koehnken 1996). In fact, evidence provided by eyewitnesses is sometimes the only evidence linking a suspect to a crime (Sporer, Malpass, and Koehnken 1996). For that reason, eyewitness identifications are controversial because, although some witnesses may be confident about their description of a suspect, there are inherent witness-based problems in face-recall techniques, which may limit the ultimate effectiveness of most systems in current use (Sporer, Malpass, and Koehnken 1996). Moreover, from the point of view of criminal investigation, accurate face recall is of considerable importance, not only because the penalties for crime in the United States range from probation to death but also because show ups, lineups, and photo arrays rely solely on the accuracy of face recall to build a case.

Eyewitness *mis*identification is the single most significant factor behind wrongful convictions in the United States. According to the Innocence Project, it has played a role in over 75 percent of convictions that subsequently were overturned on the basis of DNA evidence (Innocence Project).

Issues involving eyewitness testimony, specifically the reliability of eyewitness testimony, can be divided into two categories: (1) errors in describing the actual event and (2) errors in describing the persons involved. Problems in the latter category focus primarily on eyewitness identification of suspects that necessitates a reliance on face-recall data to connect the specific characteristics of suspects' faces with the events of a crime.

Face Recall

Generally speaking, people tend to process faces holistically. This means that the faces we encounter form an impression in our minds that incorporates the major details of the faces as well as where the specific features on a face are configured to make a person look the way that he or she appears to us in our recollection. The width of a person's face, the length of the nose, as well as the distance between a person's eyes, for example, are processed together as a combination of features that is then recorded as an image taking into account the relationship of the features to one another. In a recognition task, witnesses are presented with a target and search their store of faces until a response of familiarity is evoked. Such familiarity can easily be confused with recall from the actual features of the person who was viewed at the crime scene.

The task of face recall is generally much more difficult than that of recognizing faces, and this difficulty may well be exacerbated by techniques that require the witness to select items from a set of pictorial illustrations and assemble them into a picture of a whole face. The two aspects of the task—decomposition of a holistic image into elements and visual scrutiny of pictorial elements—may each interfere with the witness's ability to maintain a visual image of the face she or he is trying to recall (Innocence Project).

Therefore eyewitness identifications must be viewed cautiously (Terry 1994).

A Case Study

Jennifer Thompson (Doyle 2005), the first victim in the court's narrative, is blonde and tiny, five feet tall, weighing 100 pounds. She speaks quietly and ends her sentences with the rising, interrogative lilt characteristic of girls raised in the South. It is easy to see the traces of her upbringing as the adored daughter of suburban North Carolina business executives.

But it is easy to see something else in Jennifer's interview, too: the iron resolve with which she survived her attack and pursued her attacker and the unflinching honesty with which she is determined to tell the story of the assault and its aftermath. During the rape, her mind was racing:

> At that point, I realized that I was going to be raped and I didn't know if this was going to be the end, if he was going to kill me, if he was going to hurt me and I decided that what I needed to do was outsmart him. Throughout the evening, I would turn on lights, even if it was just for a second, and he would

> tell me, "Turn the lights off." And at one point, he bent down and turned on my stereo and a blue light came off of the stereo and it shone right up to his face and… and I was able to look at that. When I went into the bathroom, I turned the light on and he immediately told me to shut it off, but it was just long enough for me to think, "Okay, his nose looks this way" or "His shirt is navy blue, not black," little, brief pieces of light that I could piece together as much as I could piece together.

Jennifer escaped to a neighbor's house and was taken to a local hospital emergency room, where a rape kit was prepared. There, she was interviewed for the first time by Burlington police captain Mike Gauldin. The qualities that strike a viewer watching Jennifer's interview struck Detective Gauldin during their initial encounter: "She was so determined during the course of the sexual assault to look at her assailant well, to study him well enough so that, if given an opportunity later, she would be able to identify her assailant," Gauldin remembered. "A lot of victims are so traumatized, so overcome with fear during the course of the sexual assault itself, that it's unusual to find somebody that's capable of having that presence of mind."

Gauldin asked Jennifer to help a police artist prepare a composite drawing of the rapist. That drawing was widely circulated, and it generated an anonymous tip. An informant

INTERVIEWING EYEWITNESSES AT THE SCENE

The U.S. Department of Justice provides guidelines on working with eyewitnesses from the point of the first phone call regarding an incident to the conduct of the suspect lineup and other procedures. For example, law enforcement officers performing a preliminary investigation following the report of an incident are advised to:

1. Establish rapport with the eyewitness.
2. Inquire about the witness's condition.
3. Use open-ended questions (e.g., "What can you tell me about the car?"); augment with closed-ended questions (e.g., "What color was the car?").
4. Clarify the information received with the witness.
5. Document the information received from the witness, including the witness's identity, in a written report.
6. Encourage the witness to contact investigators with any further information.
7. Encourage the witness to avoid contact with the media or exposure to media accounts concerning the incident.
8. Instruct the witness to avoid discussing details of the incident with other potential witnesses.

Source: U.S. Department of Justice, *Eyewitness Evidence: A Guide to Law Enforcement.* http://www.ncjrs.gov/pdffiles1/nij/178240.pdf

provided Gauldin with the name of a man with a criminal record, a man who worked at Somer's Seafood Restaurant in the neighborhood of Jennifer's apartment, a black man with a habit of touching white waitresses and teasing them about sex. The caller said the man owned a blue shirt similar to the shirt Jennifer had seen on the night of the rape. Gauldin placed that man's photograph in an array of six individual mug shots of black men and asked Jennifer whether she recognized anyone. The composition of the array was fair, and no one stood out unduly. Gauldin played it straight: He made no effort to prompt Jennifer or tip her off to his suspect. Jennifer remembers her photo identification this way: "It didn't take me very long. It took me minutes to come to my conclusion. And then I chose the photo of Ronald Cotton. After I picked it out, they looked at me and they said, 'We thought this might be the one,' because he had a prior conviction of the same… same type of circumstances sort of."

Armed with Jennifer's identification, Gauldin obtained a search warrant and set out to arrest Ronald Cotton. Cotton was not at home, but Gauldin did find two pieces of evidence in Cotton's room: a red flashlight like one described by the second rape victim and a shoe with a foam insert consistent with foam found on the floor at Jennifer's apartment. When Cotton heard about Gauldin's search, he turned himself in at the police station "to clear things up." Cotton gave Gauldin an alibi, but his alibi did not check out. Gauldin arranged to have Cotton stand in a live lineup.

Jennifer methodically examined the line of six black men arrayed across the front of a room at police headquarters. "They had to do the steps to the right, to the left, and then turn around," she recalled. "And then they were instructed to do a voice presentation to me. They had to say some of the lines that the rapist had said to me that night so I could hear the voice, because the voice was a very distinct voice."

Jennifer narrowed her choices to the man wearing number 4 and Ronald Cotton, who was wearing number 5. She had the police put the lineup members through their routine again. Then she was sure: "It's number 5," she said. Later, Gauldin explained what had happened: "That's the same guy. I mean, that's the one you picked out in the photo."

"For me," Jennifer remembered "that was a huge amount of relief, not that I had picked the photo, but that I was sure when I looked at the photo that [it] was him and when I looked at the physical lineup I was sure it was him." She was still sure when she testified in court and identified Ronald Cotton.

She was just as sure when she faced Cotton again, in a second trial ordered by the North Carolina Supreme Court. There was a new challenge this time. Cotton's lawyers had pursued inmate rumors that the Burlington rapes actually had been committed by a convict named Bobby Poole. At Cotton's second trial, Poole was brought into court and shown to Jennifer. Jennifer did not flinch then either. "I thought," she told *Frontline,* "Oh, this is just a game. This is a game they're playing." It was not Poole, Jennifer told the jurors, "I have never seen him in my life." She told them it was Cotton. At the second trial, the other Burlington victim testified for the first time, and she also positively identified

Cotton. Cotton was convicted again, and Jennifer was elated. "It was one of the happiest days of my life," she recalled. Now she knew for certain that Cotton was never going to get out. She had forced herself to go through two trials; she had picked the right man; she had her justice. "I was sure as I can be," she remembers.

But Jennifer Thompson was wrong. The second Burlington victim was wrong. Mike Gauldin and the Burlington police, despite their conscientious, by-the-book investigation, were wrong. The 24 jurors who in two separate trials had convicted Ronald Cotton were wrong.

Procedural Issues between Cops and Prosecutors

Mistaken identifications are not uncommon in our system of justice. The police actually see lots of misidentification during criminal investigations. In fact, witnesses—20 to 25 percent in one survey—routinely identify fillers in photo arrays or lineups. These confident but mistaken witnesses never make it to the prosecutors because their cases are screened out, but they are a regular feature of an investigator's life. The prosecutors, by contrast, seldom see a case unless the police have a solid identification and something to corroborate it (Doyle 2005). For that reason, it can be said that the police are primarily responsible for the outcome of eyewitness identifications and consequently take great care to make sure that the procedures for conducting show ups, photo arrays, and lineups are closely followed. Contrarily, anything resembling standardized procedures represents a potential danger for prosecutors because defense lawyers are viewed as being eager to pounce on any deviation from the new standard procedures (Doyle 2005). Although following routine procedures may be a fundamental part of police culture, it may sometimes place an extra burden on prosecutors, who want to be able to exercise their judgment in preparing a case for trial. It has therefore been argued that the science of memory must count in police stations and courtrooms (Doyle 2005), not only to alleviate the perils of mistaken identifications based on poor processes, but also to ensure the accuracy of prosecution.

The Science of Memory

In 1975, Lavrakas and Bickman found that in a study of 54 prosecuting attorneys in a large metropolitan community, "an eyewitness identification and the victim's memory of the incident (which is also an eyewitness account) are far more important than any other characteristics a witness possesses, such as age, race, or level of income" (Loftus 1996, 12). Lavrakas and Bickman interpreted the prosecutors' responses to mean that having a witness who could recall events accurately was absolutely crucial to the just resolution of criminal cases. The likeableness of the witness as well as his or her appearance and presentation on the stand during the trial were also shown to influence the perception of credibility. Most important, however, was the ability of the witness to portray confidence on the stand as well as to give an accurate description of events that could not be easily

influenced when the added pressure of cross-examination was applied by the defense. Indeed, this is a difficult task, because defense lawyers are sometimes very well trained in cross-examination techniques that can lead to inconsistent results, particularly when small details of events are challenged over long periods of time.

When we experience an important event, we do not simply record that event in memory as a videotape recorder would. The situation is much more complex. Nearly all of the theoretical analyses of the process divide it into three stages. First, there is the *acquisition* stage—the perception of the original event—in which information is encoded, laid down, or entered into a person's memory system. Second, there is the *retention* stage, the period of time that passes between the event and the eventual recollection of a particular piece of information. Third, there is the *retrieval* stage, during which a person recalls stored information. This three-stage analysis is so central to the concept of the human memory that it is virtually universally accepted among psychologists (Loftus 1996).

In sum, once the information associated with an event has been encoded or stored in memory, some of it may remain there unchanged whereas some may not.

Background

The three most common types of eyewitness identifications, all of which offer their own relative advantages and disadvantages to criminal investigations occurring in the United States, are among several techniques for identifying suspects that law enforcement officials use to buttress their case for arrest. First, lineups of the sort that appear in popular movies and television shows depicting a suspect who is escorted into a room with three to five supposedly similar-looking people to stand before a witness to a crime have routinely been scrutinized owing to the questionable similarity of the participants' physical characteristics. In *Martin v. Indiana* (1977), for example, in which the description of the suspect was that of a tall 32-year-old African American, only 2 out of 12 people in the lineup were African American and one of them was only five feet three inches tall.

Second, photo lineups in which eyewitnesses attempt to identify suspects from an array of photographs are not generally considered as reliable as live lineups owing to the variable quality of the photos. Photo arrays continue to be used because of the diversity of treatments available to the administrators of the photo lineups, such as adding additional photos to the lineup so that the witness must choose from an array of numerous photos as opposed to the numeric limitations of a live lineup. Also, additional photos of the actual suspect can be added to the photo array in varying poses and with various ornamentation, such as with or without a beard or glasses. Still, issues arise with the fairness of such techniques where justice is concerned because, for example, when a suspect appeared in 14 of 38 photos, a New Jersey court ruled, in *State v. Madison* (1988), that the photo array was impermissibly suggestive (*State v. Henderson* 1988).

Finally, police usually arrange show ups when they present a single suspect to a witness and ask, "Is he the one who raped you?" Show ups have been criticized for inherent prejudice owing to the nature of the show up, because they usually happen immediately after the crime, and some witnesses may view the fact that the police have apprehended the person as a sign that the person is guilty of the crime. The U.S. Supreme Court, however, has not ruled that this procedure constitutes a constitutional due process violation if there is additional reason to believe that the suspect is in fact the guilty party. Some state courts, however, as in the case of *People v. Guerea* (1974), have routinely ruled that show ups violate due process. In short, mistaken identification was observed to be the major source of error contributing to wrongful convictions in recent years (Sporer, Malpass, and Koehnken 1996).

A Key Moment

Hugo Muensterberg is credited with having performed one of the earliest experimental demonstrations of eyewitness misidentification in Berlin in 1902 when, as a college professor, he staged a fight between students during a lecture. It was so arranged that one of the actors appeared to have shot another with a pistol. Students attending the lecture were asked to write down their account of the fight immediately following the event, but only 26 percent of the students were able to give somewhat accurate details, and even those presented some erroneous facts, such as nonattributed and misattributed language and actions (Muensterberg 1908).

Important Persons and Legal Decisions

Three landmark cases that first established constitutional parameters regarding eyewitness identification in criminal trials established procedural standards: (1) In *United States v. Wade* (1967), the Supreme Court held that because a postindictment lineup is a "critical stage" of prosecution, the defendant had a right to have an attorney present (*United States v. Wade* 1967). (2) *Gilbert v. California* (1967) augmented the ruling set forth in *Wade* by holding that "a per se exclusionary rule as to such testimony can be an effective sanction to assure that law enforcement authorities will respect the accused person's constitutional right to the presence of his counsel at the critical lineup" (*Gilbert v. California* 1967). And (3) *Stovall v. Denno* (1967) created a standard whereby the identification procedure may not be "so unnecessarily suggestive and conducive to irreparable mistaken identification that [the suspect is] denied due process of law."

Additional challenges to the procedures set forth by the Supreme Court standards have questioned the constitutionality of eyewitness identifications based primarily on the Sixth Amendment right to counsel. Arguments for Sixth Amendment protection, for example, suggest that suspects are entitled to an attorney if identification occurs at a preliminary hearing, even before the indictment, but not if the identification is conducted as a part of an on-the-scene show up. Besides, it is well known that although

states may increase rights provided by the Constitution (including the Sixth Amendment), states cannot decrease its protections. Pennsylvania, for example, requires an attorney at all postarrest lineups, and Tennessee provides the right to counsel as soon as an arrest warrant is issued. New York even requires the presence of an attorney if a suspect wants to waive his or her right to counsel as an added protection for the validity of the waiver (Sporer, Malpass, and Koehnken 1996). To that end, "The vast majority of eyewitness identification cases have been decided on due process grounds" (Sobel 1988, 110).

It should also be noted that *Neil v. Biggers* (1972) outlined the following five witness factors to be used in considering whether the defendant's due process rights have been violated: (1) opportunity of the witness to view the criminal at the time of the crime, (2) the witness's degree of attention, (3) the accuracy of the witness's prior descriptions, (4) the witness's level of certainty, and (5) the time lapse from the crime to the identification (*Neil v. Biggers* 1972). Opportunity to view can involve factors such as whether the crime and the identification occurred in daylight, as well as the distance and time duration within which the crime occurred. The case of *Gilliard v. LaVallee* (1974) provided the foundation for considering time duration in eyewitness identifications because, in that case, the kidnap victims were able to view their captors for up to six hours (*Gilliard v. LaVallee* 1974). Similarly, the degree of attention paid by eyewitnesses to the crime at the time that it occurred can be said to influence the credibility of eyewitness identifications. Attention is high when undercover officers are making a drug deal (*State v. Denny* 1984), for example, but low when an assailant awakens a victim during an incident (*People v. Leonard* 1978). Prior descriptions may cause inconsistency and may not be allowed in trial proceedings in cases where a witness provides a physical description of a suspect at the scene of a crime by height and weight, for example, but it is later determined that the height and weight of the suspect are significantly different from what the witness first reported.

Although it is commonly agreed that certainty is ascertained with the traditional standard set forth in *Neil v. Biggers,* "that a confident witness is an accurate witness" (Sporer, Malpass, and Koehnken 1996), there is some evidence to suggest that the relative certainty with which a witness identifies a suspect cannot, in fact, be correlated with the degree of accuracy. For example, time lapse can greatly influence the degree of accuracy regardless of the degree of confidence displayed by witnesses. Generally, there is no due process violation based on the length of time lapse between the event and the identification, but the accuracy of identifications has not been shown to increase with time; for example, two years did not present a problem to the New Hampshire court in *State v. Cross* (1986).

Still, other factors may also influence eyewitness identification, such as unconscious transference, which usually occurs when a person actually seen in an unrelated place or context is mistakenly identified as the offender in an eyewitness identification procedure. Also, identifications made by people in some occupations, such as college professors

(*Plummer v. State* 1980), lawyers (*Robinson v. State* 1985), and security guards (*Royce v. Moore* 1972) are sometimes viewed by trial participants as being more credible.

Conclusion

In 2001, New Jersey became the first state with guidelines strongly recommending that police use a sequential method of photo identification rather than displaying an array of photos of suspects (Harry 2001). Studies have shown that the new method, which does not allow witnesses to compare mug shots side by side, drastically cuts the number of mistaken identifications. Based primarily on a U.S. Justice Department study commissioned in 1999, the results of which showed that many cases overturned with DNA evidence relied heavily on witness identifications of suspects, the push for the sequential method came from law enforcement officials rather than persons who had been wrongly convicted or their advocates (Harry 2001). Further, there has been opposition to the variability with which many police departments around the country process eyewitness identifications; for that reason, it has been argued that the problem of misidentification can be avoided by scripting data collection with police departments (Wells and Olson 2003). In addition, conditions are being found in which eyewitness certainty might be more closely related to eyewitness identification accuracy than was once thought, especially when external influences on eyewitness certainty are minimized; but the difficulty of exploring that relationship remains because of a perceived disconnect between social science and policing. Police records, for example, do not distinguish between eyewitnesses who make identifications of a filler and those who make no identifications, which can result in a serious underestimation of the rate of filler identifications (Wells and Olson 2003).

Finally, in a law review article published in 2002, Dori Lynn Yob suggested that the problems with a state-by-state approach point to a broader solution: the adoption of mandatory, uniform, nationwide standards (Yob 2002). She goes on to argue that such a broad set of standards would be most effectively implemented through a U.S. Supreme Court decision and proposes that the following changes be made: (1) The witness should be instructed prior to the lineup that the perpetrator may or may not be present and that he or she should not feel pressured to make an identification. (2) The composition of the lineup should not cause a suspect to stand out unduly. (3) Fillers in the lineup should be chosen to fit the eyewitness's initial description of the culprit rather than to resemble the suspect. (4) When there is more than one witness, a different lineup should be created for each witness, with only the suspect remaining the same. (5) Lineups should always be conducted by someone unconnected to the case who does not know the identity of the suspect. (6) Mock witnesses should be used to test the neutrality of each lineup, and blank lineups should always be used. (7) Sequential lineups should always be used. And (8) lineups should always be videotaped.

In Yob's view, "uniform nationwide guidelines would likely have an impact on the amount of erroneous eyewitness evidence because the guidelines would help attorneys identify and object to faulty identification procedures," and "a critical look at the problems with eyewitness identification evidence should be included in the curriculum of certain high school and college classes"(Yob 2002), not only because students at the high school level are more likely to incorporate the education into civic duties they learn to fulfill as they develop but also because most people do not attend college. For that reason, we are more likely to capture the hearts and minds of the young people in high school today before they become the jurors, judges, and police of tomorrow.

See also **DNA Usage in Criminal Justice; Expert Witness Testimony; Miscarriages of Justice**

Legal Citations

Gilbert v. California, 388 U.S. 263; 87. S. Ct. (1967).
Gilliard v. LaVallee, 376 F. Supp. 205. (S.D. N.Y., 1974).
Martin v. Indiana, 438 F. Supp. 234. (N.D. Ind., 1977).
Neil v. Biggers, 409 U.S. 188. (1972).
People v. Guerea, 78 Misc. 2d 907, 358 N.Y.S. 2d 925.
People v. Leonard, 66 A.D.2d 805, 410 N.Y.S. 2d 885. (1978).
Plummer v. State, 270 Ark. 11, 603 S.W.2d 402. (1980).
Robinson v. State, 473 So.2d 957 Miss. (1985).
Royce v. Moore, 469 F.2d 808. (1st Cir., 1972).
State v. Cross, 128 N.H. 732, 519A.2d 272. (1986).
State v. Denny, 350 N.W.2d 25. (N.D., 1984).
State v. Henderson, 109 N.J. 223, 536 A.2d 254. (1988).
Stovall v. Denno, 388 U.S. 293; 87 S. Ct. (1967).
United States v. Wade, 388 U.S. 218; 87 S. Ct. (1967).

Further Reading

Cutler, Brian, and Margaret Bull Kovera, *Evaluating Eyewitness Identification.* New York: Oxford University Press, 2010.

Doyle, James M., *True Witness: Cops, Courts, Science, and the Battle against Misidentification.* New York: Palgrave Macmillan, 2005.

Harry, Jennifer L., "DNA Evidence Changes Identification Methods." *Corrections Today* 63, no. 6 (2001): 3–5.

Innocence Project, "Eyewitness Misidentification." http://innocenceproject.org/understand/Eyewitness-Misidentification.php

Loftus, Elizabeth F., *Eyewitness Testimony.* Cambridge, MA: Harvard University Press, 1996.

Muensterberg, H., *On the Witness Stand: Essays on Psychology and Crime.* New York: Doubleday, 1908.

Rossmo, D. Kim, *Criminal Investigative Failures.* Boca Raton, FL: CRC Press, 2008.

Sobel, N. R., *Eyewitness Identification: Legal and Practical Problems.* New York: Clark Boardman, 1988.

Sporer, Siegfried Ludwig, Roy S. Malpass, and Guenter Koehnken, eds., *Psychological Issues in Eyewitness Identification.* Mahwah, NJ: Erlbaum, 1996.

Terry, Roger L., "Effects of Facial Transformations on Accuracy of Recognition." *Journal of Social Psychology* 134, no. 4 (1994): 483–489.

Wells, Gary L., and Elizabeth A. Olson, "Eyewitness Testimony." *Annual Review of Psychology* 19 (2003): 277–296.

Yob, Dori Lynn, "Mistaken Identifications Cause Wrongful Convictions: New Jersey's Lineup Guidelines Restore Hope, but Are They Enough?" *Santa Clara Law Review* 43 (2002): 213.

G

GANG INJUNCTION LAWS

Rebecca Romo and Xuan Santos

Throughout the United States, in both urban and rural regions, people perceive juvenile crime and gang violence as a menace to society. Although recent statistics show a relative decline in crime rates, gang crime remains the center of attention. Although youth increasingly join street organizations for social status and respect among their peers, the media allege that these gangs disrupt the quality of life of their communities. Tracey L. Meares and Dan M. Kahan (1998) argue that the high rates of crime that continue to plague inner-city communities rob residents of their security, undermine legitimate economic life, and spawn pathological cultures of violence that ruin the lives of victims and victimizers alike. Community residents, gang experts, and prosecutors have alleged that these so-called superpredators (Krisberg 2005) intimidate citizens and force them to submit to their authority so that they can sell drugs, party in public, stash weapons, and commit crimes with impunity.

Chris Swecker, assistant director of the Criminal Investigative Division of the FBI, said before the subcommittee on the Western Hemisphere of the U.S. House of Representatives Committee on Foreign Affairs that "Gangs are more violent, more organized, and more widespread than ever before. They pose one of the greatest threats to the safety and security of all Americans. The Department of Justice estimates that 30,000 gangs with 800,000 members impact 2,500 communities across the U.S." (Swecker 2005). Swecker highlights the mainstream discourse and ideology on gang violence, which suggests a

threat to communities across the United States by describing gangs as disrupting the moral fabric of U.S. society. Accordingly, advocates of gang injunction laws maintain that these civil codes provide law enforcement with more tools to fight gangs and reduce crime. On the other hand, critics and opponents of gang injunction laws maintain that they are ineffective and a waste of taxpayers' dollars, which could be better spent on community development and crime prevention.

Background

To date, there are no accurate figures on the number of gangs or gang members or the extent of gang crime in the United States. Sociologist Malcolm Klein, one of the leading experts in this field, estimated in the 1990s that there were between 800 and 1,000 cities with gang crime problems, with more than 9,000 gangs and 400,000 gang members (Klein 1995). In 2002, the National Youth Gang Survey found that cities with gang problems more than doubled Klein's figures, with a total of 2,300. Figures from the 2006 survey showed the total dropping only slightly (to 2,199). It found a total of 26,500 gangs with an estimated 785,000 members in the United States; these were approximately 46 percent Latino or Latina and 34 percent African American (FBI Law Enforcement Bulletin 2009). Most data on gang members collected by law enforcement derive from self-identification, monikers, tattoo insignia, community input (gang members, community workers, neighbors, teachers, and family members), and gang members'

GANG INJUNCTION LAWS IN CALIFORNIA

California Civil Code § 3479: Nuisance Defined

A nuisance is anything which is injurious to health, including, but not limited to, the illegal sale of a controlled substances, or is indecent or offensive to the senses, or an obstruction to the free use of property, or unlawfully obstructs the free passage or use, in the customary manner of any navigable lake, or river, bay, stream, canal, or basin, or any public park, square, street, or highway, is a nuisance.*

California Civil Code § 3480 Public Nuisance Defined

A public nuisance is defined as one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.**

* California Law Search. "California Civil Code Section 3479." 2006. http://california-law-search.com/civ/3479–3484.html
** California Law Search. "California Civil Code Section 3480." 2006. http://california-law-search.com/civ/3479–3484.html

DID YOU KNOW?

In order to determine if you have a case and an effective gang injunction, you must accomplish the following:

- Survey crime in the area to identify problem areas, individuals, and activities
- Gather quality-of-life information to prove neighborhood damaged by gang nuisance
- Identify community stakeholders and determine what the community believes are so-called fear factors
- Examine law enforcement local expertise; identify necessary declarants for court documents
- Search for nexus of:
    1. Criminal activity
    2. Nuisance activity
    3. Individual gang members

Source: Julie Bishop, *Gang Injunctions: A Primer.* Los Angeles: City Attorney's Office, 1998.

style of dress and demeanor—among the many characteristics that law enforcement officials use to determine gang membership.

Nevertheless, law enforcement agencies claim they lack the funding and resources to combat gang activity and to protect communities. In addition, law enforcement and politicians pump fear into the public in order to acquire resources and the permission to mount an all-out attack on gangs. The climate of fear nurtured by law enforcement officials has paved the way for the rise of gang injunctions and restraining orders on street organizations. California became the first state to develop a hard-hitting gang injunction procedure by applying public nuisance laws to enforce civil injunctions that prohibit suspected gang members from engaging in either legal or criminal activities in public spaces known as *free zones* or *safety zones* (Burdi 2007). Free zones and safety zones map out the areas in a community, usually consisting of a few square blocks, where gang members may not associate with one another.

Gang injunction laws allow prosecutors to use public nuisance doctrines prohibiting lawful and unlawful behavior at their discretion. Civil procedures do not require jury trials, defense counsel, or the burden of proving guilt beyond a reasonable doubt.

Operationalizing These Laws

For a gang injunction petition to be honored in civil court, the prosecutors must establish two sources who identify defendants. Prosecutors often rely upon the community residents, law enforcement intelligence, and informants to establish a person's gang activity.

Once this is accomplished, the prosecution must serve gang members with paperwork adjudicating them to the lawsuit, and once served, the injunction becomes effective. During the injunction hearings, the defendant's preexisting gang activity is exposed, even if he or she has not been arrested or convicted of a crime. This represents a disturbing trend in criminal justice in which crimes are punished before they actually happen. Most requests for gang injunctions are granted; however, the judge has discretionary power to change the terms of the injunction. In addition, the judge may exclude named individuals from the complaint owing to poor evidence implicating an individual to gang affiliation or for failure to serve an individual with a copy of the complaint.

In an effort to expel gang members from a target area, on October 26, 1987, the Los Angeles city attorney and former mayor James Hahn became the first to use a public nuisance abatement lawsuit in *People v. Playboy Gangster Crips*. This injunction barred 23 individually identified gang members from breaking 6 of 23 injunction terms, which, under California law, were already illegal. Although this injunction was not completely successful, it established a legal precedent in the use of the public nuisance doctrine to combat an entire urban street organization instead of individuals (L.A. City Attorney Gang Prosecution Section 1995, 325–331).

Jeffrey Grogger, professor of urban policy at Harvard University, dispels the myth that all gang injunctions operate in the same way. He argues that prohibited activities vary somewhat, but they typically include a mix of activities already forbidden by law, such as selling drugs or committing vandalism, and otherwise legal activities, such as carrying a cell phone or associating in public view with other gang members named in the suit. Once the injunction is imposed, prosecutors can pursue violations of the injunction in either civil or criminal court. The maximum penalty for civil contempt is a $1,000 fine and five days in jail. The maximum penalty under criminal prosecution is a $1,000 fine and six months in jail. Although civil procedures result in less stringent penalties, they have the advantage that their penalties can be imposed without criminal due process (Grogger 2002).

In 1993, the most complete gang injunction issued thus far took place in the community of Rocksprings in San Jose, California, an area that gang members from Varrio Sureño Trece, Varrio Sureño Town, or Varrio Sureño Locos (VSL) claimed as their turf (Castorena 1998). Silicon Valley residents felt unsafe and threatened because gang members congregated on sidewalks and lawns, where it was alleged that VST and VSL gang members engaged in a plethora of drug sales, violent activities, loitering, and lewd conduct. The residential condition made people afraid of having their children play outside and deterred residents from having visitors because they were afraid of gang reprisal in the four-square-block neighborhood.

As a result, the city of San Jose issued a gang injunction against 38 members of the three named gangs. It enjoined and restrained these individuals from engaging in the following activities: intimidating witnesses, which meant confronting, annoying,

harassing, challenging, provoking, assaulting, or battering any person known to be a witness to or victim of a crime; grouping together (driving, gathering, sitting, and standing) with other known Trece/VSL associates in public or any place accessible to the public; carrying any firearms (imitation or real) and dangerous weapons on their persons or in the public view or any space accessible to the public; fighting anywhere in public view (streets, alleys, private and public property); using gang gestures (hand signs, physical gestures, and discourses) describing or referring to any of the three gangs; wearing clothing bearing the name or letters spelling out the name of a gang; selling, possessing, or using illegal drugs or controlled substances without a prescription (prohibiting anyone from knowingly remaining in the presence of such substances as well); the public consumption of alcohol anywhere in public view or in any place accessible to the public; spray painting or applying graffiti on any public (alleys, block walls, streets) or private property (residences or cars); possessing any graffiti paraphernalia (spray cans, paint markers, etching tools, white-out pens, acrylic paint tubes, various paint cap tips, razor blades, or other known graffiti tools) unless going to or from art class; or trespassing on private property. Gang members were also required to honor a daily curfew from 10:00 P.M. to sunrise unless they were going to a legitimate meeting or entertainment activity, engaging in a business trade, profession, or occupation, or involved in an emergency situation. They were enjoined from looking out for another person to give warning that a law enforcement officer was approaching by whistling, yelling, or signaling and also violating the law in any other way (thus prohibiting violence and threats of violence, including assault and battery, murder, rape, and robbery by force or fear).

Defendants from the three gangs challenged the unconstitutional vagueness of this court order in *People ex rel. Gallo v. Acuña,* and an appeals court threw out 15 of the 25 original provisions. As a result, the San Jose city attorney appealed two provisions to the California Supreme Court: the terms that prohibited gang members from congregating in safe zones and one barring them from harassing or threatening inhabitants who complained about gang activities. The California Supreme Court approved the use of civil antigang injunctions by rejecting the constitutional challenge to the use of a public nuisance abatement injunction against street gangs. This decision took into consideration the interest of the community while restricting the First Amendment rights of free speech and association of gang members.

According to Justice Janice Brown, "To hold [that] the liberty of the peaceful, industrious residents of Rocksprings must be forfeited to preserve the illusion of freedom for those whose ill conduct is deleterious to the community as a whole is to ignore half the political promise of the Constitution and whole of its sense.…Preserving peace is the first duty of government, and it is for the protection of the community from the predations of the idle, the contentious, and the brutal that government was invented" (*People ex rel. Gallo v. Acuña* 1997). The *People ex rel. Gallo v. Acuña,* a landmark California

Supreme Court decision, paved the way for municipal government across the state to use similar gang suppression tactics to curtail gang activities.

For example, in 2006, Dennis Herrera, the San Francisco city attorney, sought an injunction against the Oakdale Mob Gang because of their reputation for distributing drugs and contributing to an increasing rate of violent crime, including harming and killing rival gang members and witnesses. To protect residents, Herrera pushed for punishing any gang member who violated a curfew order of 10:00 P.M. or who congregated with other gang members within a four-block safety zone. There were also many other

INEFFECTIVENESS OF GANG INJUNCTION LAWS

In 1995, the city of Pasadena, California, instituted two separate gang injunction laws. The city later discarded the gang injunction after the Pasadena Police Department and other governing bodies found it difficult to control gang activity as crime spilled over to other regions, making their efforts a complete failure. The failure of gang injunction laws stems from their inadequate ability to address the complex structure of gangs and the emerging crime issues in neighboring areas.*

In 1997, the Southern California division of the American Civil Liberties Union (ACLU) conducted a 10-year longitudinal study on the effectiveness of gang injunction laws. The ACLU focused on the efficacy of the 1993 injunction law against the predominantly Latino Blythe Street Gang. The ACLU found that gang injunction laws do not meet their objectives in reducing the long-term crime incidences in Blythe Street's safety zone.**

Opponents of gang injunction laws argue that they are expensive and deplete city resources. The constitutional cost of embarking on a gang injunction campaign ranges from $400,000 to $500,000. Several civil libertarians, social justice organizations (e.g., Books not Bars), and law enforcement practitioners argue in favor of investing funds in educational programs geared at preventing crime. Take, for example, Father Gregory Boyle, a Jesuit priest who founded Homeboy Industries in the community of Boyle Heights in East Los Angeles. Although many organizations quickly condemn gang members, Homeboy Industries offers an alternative to punitive approaches by offering gang members their first chance by helping them to become gainfully employed. Boyle believes that the best way to deal with gangs requires a major shift in moving away from the symptoms of gangs to addressing the social disease leading to gang formation. Boyle believes that gang injunctions fail to address the structure of poverty and law enforcement's misdiagnosis of the problem.***

*Matthew Mickle Werdegar. "Enjoining the Constitution: The Use of Public Nuisance Abatement Injunctions against Urban Street Gangs." *Stanford Law Journal* 51 (1999): 404–445.
**American Civil Liberties Union. "False Premise, False Promise: The Blythe Street Gang Injunction and Its Aftermath," 1997. http://www.streetgangs.com/injunctions/topics/blythereport.pdf/
***Gregory Boyle, guest lecturer, University of California–Santa Barbara, Sociology 144, Chicana/o Communities, February 26, 2004.

restrictions (Martin 2006). Similarly, in 2005, San Diego County District Attorney Terri Perez filed a court order prohibiting known gang members from grouping together with other associates, displaying gang signs, wearing gang attire, carrying weapons, selling illegal narcotics in public, or fighting in areas of downtown Vista (Klawonn 2005). The widespread use of injunction laws to combat neighborhood gang problems has now appeared in Austin, Los Angeles, Phoenix, Sacramento, San Antonio, San Diego, San Francisco, San Jose, and Stockton.

Many law practitioners believe that the relative reduction of crime in communities derives from law agencies holding an entire group of gang members accountable for the actions of individuals. From a law enforcement standpoint, gang injunction laws address status offences and nuisance activities before they become felonious. Julie Bishop, the leading project attorney on gang injunctions for the Los Angeles city attorney's office, argues that communities benefit from gang injunction laws:

> [T]hey have an amazing, immediate deterrent effect on the entire [gang] group's activity, not just the few who are "sued" by the City Attorney. They complement Neighborhood Recovery Efforts and address the gang problem from a group perspective. They save traditional law enforcement response for the chronic serious offenders. They have a preventive aspect in that they repeatedly warn defendants of the consequences of continuing their behavior. (Bishop 1998, 2)

Conclusion

As local and federal agencies attempt to ameliorate the gang problem, recent trends reveal a drop in the overall crime rate. At the core, these Draconian gang injunction laws attempt to deter individuals from committing future crimes at the expense of their constitutional rights while exacerbating police repression and extending the prison system in communities of color. As noted in the 1998 National Youth Gang Survey, approximately 80 percent of gang members are African American and Latino or Latina. Gang injunction laws disproportionately affect youth and adult gang members of color.

Victor M. Rios, sociology professor at the University of California–Santa Barbara, argues that the ever-expanding power and punitiveness of criminal justice policies and practices affect every member of poor racialized communities in multiple ways, especially urban youth of color. For example, law enforcement often applies gang injunctions to minorities because of their race, not because they have demonstrated substantial evidence of gang activity or crime. This process has increased the probability of harassment of many law-abiding people of color. Rios notes that this so-called hypercriminalization of communities of color is derived from surveillance, security, and punitive penal practices centered on controlling black and brown populations preemptively—before they have even committed a criminal act (Rios 2006).

Lawrence Rosenthal argues that the enforcement of conventional laws, accordingly, allows the police enormous freedom to undertake a variety of quite heavy-handed

measures against the residents of inner-city minority communities—authority that officers who may harbor racial biases are frequently accused of misusing (Rosenthal 2002). The taking away of constitutional rights of expression and assembly, like forbidding gang members from interacting with lifelong friends, brothers, and sisters in the same family or banning street attire, does not address the systemic conditions that create gangs. Gang injunction laws exacerbate institutional racism when youths of color—blacks, Latinas, Latinos, and Southeast Asians, for example—are deemed to be suspicious and criminal even if they do not belong to a gang. This means that anyone who fits a gang member profile within the confines of a safe zone may be detained, searched, and arrested without probable cause.

See also **Juvenile Justice; Gangs (vol. 3)**

Further Reading

Allan, Edward L., *Civil Gang Abatement: The Effectiveness and Implications of Policing by Injunction.* New York: LFB Scholarly Publishing, 2004.

Bishop, Julie, *Gang Injunctions: A Primer.* Los Angeles, CA: City Attorney's Office, 1998.

Burdi, Jerome, "City Safe Zones Would Ban Gangs." *Topix.* January 27, 2007. http://www.topix.net/content/trb/245837062418336453484021513989218241968 8

Castorena, Deanne, *The History of the Gang Injunctions in California.* Los Angeles, CA: Sage, 1998.

Delaney, Tim, *American Street Gangs.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

Denfeld, Rene, *All God's Children: Inside the Dark and Violent World of Street Families.* New York: Public Affairs, 2009.

FBI Law Enforcement Bulletin, Summary. http://www.fbi.gov/publications/leb/2009/june2009/bulletin_reports.htm

Fremon, Celeste, *G-dog and the Homeboys: Father Gregory Boyle and the Gangs of East Los Angeles.* Santa Fe: University of New Mexico Press, 2004.

Grogger, Jeffrey, "The Effects of Civil Gang Injunctions on Reported Violent Crime: Evidence from Los Angeles County." *Journal of Law and Economics* 45 (2002): 69–90.

Klawonn, Adam, "Injunction Sought for 89 in Vista Gang." *San Diego Tribune* (June 8, 2005).

Klein, Malcolm W., *The American Street Gang.* New York: Oxford University Press, 1995.

Klein, Malcolm W., *Street Gang Patterns and Policies.* New York: Oxford University Press, 2006.

Krisberg, Barry, *Juvenile Justice: Redeeming Our Children.* Thousand Oaks, CA: Sage, 2005.

L.A. City Attorney Gang Prosecution Section, "Civil Gang Abatement: A Community Based Policing Tool of the Office of the Los Angeles City Attorney," In *The Modern Gang Reader,* ed. Malcolm W. Klein, Cheryl L. Maxon, and Jody Miller. Los Angeles, CA: Roxbury, 1995.

Martin, Adam, "City Attorney Seeks Injunction against S.F. Gang." *Examiner* (October 23, 2006).

Meares, Tracy L., and Dan M. Kahan, "Law and (Norms of) Order in the Inner City." *Law and Society Review* 32, no. 4 (1998): 183–209.

People ex rel. Gallo v. Acuña, 929 P.2d 596, 623 (Cal., 1997) (J. Mosk, dissenting) cert. denied, 117 S. Ct. 2513.

Rios, Victor M., "The Hyper-criminalization of Black and Latino Male Youth in the Era of Mass Incarceration." *Souls* 8, no. 2 (2006): 40–54.

Rodríguez, Luis, *Hearts and Hands: Creating Community in Violent Times.* New York: Seven Stories Press, 2001.

Rosenthal, Lawrence, "Gang Loitering and Race." *Journal of Criminal Law and Criminology* 91, no. 1 (2002): 99–160.

Swecker, Chris, "Statement of Chris Swecker, Assistant Director, Criminal Investigative Division, Federal Bureau of Investigation, Before the Subcommittee on the Western Hemisphere, House International Relations Committee, April 20, 2005." http://www.fbi.gov/congress/congress05/swecker042005.htm/

GUN CONTROL

Matt Nobles

Few topics in the realm of U.S. justice and politics elicit a more polarizing response than that of gun control. Issues in gun policy range from the moral to the practical, with implications for law, economics, public health, and a host of other disciplines. At the center of the debate is the fundamental question of whether firearms, specifically those owned and wielded by private citizens, do more harm than good in deterring violent crime. Despite intense scrutiny from so many fields, however, scholars have reached few solid conclusions to date. The answers to even basic questions (who is victimized, how many are victimized, and at what cost are they victimized) are fiercely disputed, resulting in a nebulous yet hotly contested understanding of the interplay between guns and crime.

U.S. gun policy is a complex and difficult issue characterized roughly by its two diametrical sides: the pro-gun (or gun rights) camp, which argues that guns are a constitutionally protected social necessity, and the anti-gun (or gun control) camp, which asserts that guns are a fundamentally unsafe and extremely costly means to facilitate a variety of social ills. Data exist to support both sides; the difficulty lies in separating partisanship and underlying attitudes from empirical observation and objective analysis. In truth, the isolation of such objectivity may be a logical impossibility.

Background

Outside the United States, guns are sometimes a contentious issue, but rarely at the level witnessed here. Many Westernized nations feature tighter controls on private firearm ownership, particularly for certain types of weapons that could, in the view of their governments, be more readily used to facilitate crime. Australia, for example, experienced a period with relatively little gun regulation prior to the 1980s and 1990s, when a series of high-profile shooting incidents incited progressively harsher reform. Now, guns in Australia are tightly controlled, with restrictions on ownership based on the category of firearm and the evaluation of so-called genuine need on the part of the possessor. Although some low-level debate remains over gun control policies in other countries,

there is a veritable firestorm of political, academic, and litigious action on all sides of the gun control issue in the United States.

This issue begins with the interpretation of the U.S. Constitution's Second Amendment. Broadly, the amendment is concerned with security through self-defense; the key difference between the gun rights and gun control perspectives lies with precisely who is entitled to self- defense and how that defense is to be manifested.

Supporters of gun rights believe that the Second Amendment applies to individual-level possession of firearms, whereas supporters of gun control argue that the intent was to provide for the formation and readiness of peacekeeping forces such as the army or state militias. (Since the federal Militia Act of 1903, individual state militias have been organized into the National Guard and have been tasked with supplementing army units overseas and providing domestic support in relief of natural disasters.) In the former perspective, the right and responsibility of self-defense carries an individualistic connotation. In the latter, self-defense is provided for generally by the state, through publicly governed mechanisms such as police, who are entrusted with powers of arrest and tasked with maintaining order. Additional points concerning the amendment have also been debated and promoted, including the right to rebel against government tyranny.

At present, the prevailing attitude in the United States asserts the gun rights perspective—that the Second Amendment protects and guarantees individual possession. Gun rights supporters, particularly the National Rifle Association (NRA), endorse the interpretation that a "well regulated militia," as quoted in the amendment, refers to an armed populace and not only to governmental bodies such as the U.S. Army or National Guard. The NRA, founded in 1871, is the oldest continuously operating civil liberties organization in the United States. It is also, perhaps more significantly, one of the largest and best-funded lobbying organizations in the United States today. Beginning with a more conservative shift in the late 1970s, the NRA has championed laws that promote gun rights and emphasize gun safety for millions of shooting enthusiasts. The opinion about gun rights and the Second Amendment is consistently reflected in public opinion polls on gun ownership. For example, a Gallup poll conducted in 2008 demonstrated that 73 percent of respondents believed that the wording of the Second Amendment indicates a guarantee of private ownership as well as the formation of state militias (Gallup 2008).

THE CONSTITUTIONAL RIGHT TO BEAR ARMS

The Second Amendment, as passed by Congress and later ratified by the states:

> A well regulated militia being necessary to the security of a free State, the right of the People to keep and bear arms shall not be infringed.

NATIONAL RIFLE ASSOCIATION

The National Rifle Association (NRA) was founded in 1871 to promote sport shooting and it remains involved in programs to promote firearms safety in the context of hunting and marksmanship. However, it has now become the most influential lobbying group in favor of the individual right theory of the Second Amendment. The NRA (http://www.nra.org/) claims just under 3 million members. In 2004, the NRA Political Victory Fund supported 265 candidates for U.S. House or Senate seats, prevailing in 254 races.* Because the NRA considers personal firearm ownership a fundamental civil right, it opposes all firearms regulations not specifically targeted at persons already shown to be unfit to handle weapons by criminal or mental health history. It also usually opposes bans on particular weapons or firearms paraphernalia and regards firearms registration as a precursor to confiscation. The NRA's response to gun violence is to advocate vigorous enforcement of existing limitations on who may own firearms and severe penalties for unlawful use of firearms.

Legal opinion on the gun control issue seems divided, with both sides claiming victory. In some instances, both pro- and anti-gun advocates claim victory in the very same case. The case of *United States v. Miller* (1930), for example, is cited by the Brady Campaign (2007) as evidence of the courts' interpretation in favor of gun possession by militia members only, whereas the same case is cited by the NRA (Tahmassebi 2000) as evidence of support for the constitutional guarantee of individual ownership. Dozens of other contradictory instances may be found in federal and circuit court opinions dating back more than a century.

Legal Developments

The use and control of firearms in the United States has traditionally been approached from a fundamentally permissive position, with individual ownership largely unregulated. Notable exceptions to this position exist for the nature and type of firearm, the characteristics of its owner, and the provisions of its transfer—all factors that are monitored by the government. A series of federal laws have provided the framework for this means of gun control in the United States since the Prohibition era. The first and perhaps most influential of these laws was the National Firearms Act of 1934, which placed severe limitations on individuals who wished to own small arms and accessories that were generally assumed to facilitate violent crime. Among the regulated items covered in the act were sound suppressors (or silencers), destructive devices such as hand grenades, short-barreled rifles and shotguns, and fully automatic machine guns. The act makes the unlicensed possession or transfer of such items a criminal offense punishable by up to 10 years in federal prison and/or a substantial monetary fine plus forfeiture of all items that violate the act. The National Firearms Act has remained in effect, largely

unaltered, and has enjoyed bipartisan support for more than 70 years—a remarkable feat, given the frequency of legal challenges to legislative gun control.

Specific forms of gun control in the United States have also been enacted through laws intended to supplement the National Firearms Act of 1934. One such provision, the Gun Control Act of 1968 (Chapter 44 of Title 18, U.S. Code), was established following the high-profile assassinations of Martin Luther King Jr. and Robert Kennedy. This act provided tighter regulation of interstate commerce dealing with firearms, established the Federal Firearms License program to prevent individuals from purchasing guns through direct mail order or from out-of-state dealers, and mandated that all firearms produced in or imported into the United States bear a serial number for identification purposes.

Certain provisions of the Gun Control Act of 1968 were later clarified and amended in the Gun Owners Protection Act of 1986 (18 U.S.C. § 921 et seq.). This legislation featured several key decisions favoring gun rights supporters. First, it included a formal prohibition of governmental registries linking private guns to individuals. Second, it offered protection for federal firearms licensees from "abusive" inspections on the part of the Bureau of Alcohol, Tobacco, and Firearms. Third, it established a "safe passage" clause for gun owners traveling to and from legal shooting-related sporting events, effectively immunizing them from prosecution for possession or transportation of firearms outside their home jurisdictions. Finally and most critically, the act also clarified the list of persons denied private firearm ownership on public safety grounds, such as individuals who are fugitives from justice or those who have been adjudicated to be mentally ill. An amendment was added in 1996 (the Lautenberg Amendment) to prevent ownership for those who have been convicted of domestic violence and those subject to court-issued restraining orders.

Additional restrictions on gun ownership have been imposed since the Gun Owners Protection Act of 1986. In 1993, President Bill Clinton signed the Brady Handgun Violence Protection Act (18 U.S.C. § 921 et seq.) into law. The act was named for former Ronald Reagan Press Secretary James Brady, who was wounded in an assassination attempt by John Hinckley Jr. in 1981. It established a five-day waiting period for handgun purchases involving a federal firearms licensee (dealer) and a private individual (customer). The waiting period was intended to provide an opportunity for criminal background checks on the purchaser, but this system was replaced in 1998 with the establishment of the computerized National Instant Check System (NICS). NICS provides the same functionality but takes only minutes instead of days, thus preserving the original intent of the Brady Act while streamlining its implementation.

Nevertheless, gaps were found in the system in the wake of a deadly mass shooting carried out by Seung-Hui Cho, a Korean American student, on the campus of Virginia Tech in Blacksburg, Virginia, in April 2007. Cho was known to have a history of serious mental illness and, as such, should have been prevented from purchasing

firearms. After the shooting (in which 32 people died), Congress acted to strengthen NICS by ensuring that any prohibiting information regarding the status of a person with a psychiatric condition be made available during the background check process. The NICS Improvement Act was signed into law in January 2008.

For its part, the U.S. Supreme Court, until its 2010 *McDonald v. Chicago* decision, had never ruled on whether the Second Amendment addresses a fundamental individual right to possess firearms at the state level. The closest the Court had come to judgment on this issue was in a 2008 case, *District of Columbia v. Heller* (2008), which centered on the right of an individual to bear arms inside the U.S. federal district (Washington, DC). In that case, a District of Columbia law that banned persons from owning handguns (pistols) and automatic and semiautomatic weapons, and that required any firearms (rifles) held inside the home to have trigger locks was declared unconstitutional. Gun rights proponents proclaimed the ruling a major victory, while gun control advocates lamented it even while observing that it was narrowly worded.

Hence the importance of *Mcdonald* (2010) in clarifying matters. In that case, Chicago firearms restrictions similar to those previously put in place in Washington, DC, were

THE GUN-FREE SCHOOL ZONES ACT OF 1990 AND THE ASSAULT WEAPONS BAN OF 1994

The only major state or federal gun control law that has been struck down by the Supreme Court is the Gun-Free School Zones Act of 1990. The law was designed to curtail gun-related violence in schools, having been enacted after a number of high-profile school shootings. The act established a ban on the possession of firearms within 1,000 feet of a school and set a penalty of $5,000 or five years' imprisonment, or both, for violators. Soon enough, however, the law was challenged by gun rights advocates, and in *U.S. v. Lopez* (1995) the U.S. Supreme Court ruled that in drafting the law Congress had exceeded its authority to regulate commerce (in this case, commerce in guns). The Second Amendment played no part in that decision. The Court left open the possibility, however, that school districts could set out their own restrictions on the presence of guns within their jurisdictions.

The wide-ranging Assault Weapons Ban of 1994, affecting semiautomatic handguns, rifles, and shotguns, was part of the larger Violent Crime Control and Law Enforcement Act of that same year. The ban made the production of so-called assault weapons that included two or more functional or cosmetic features such as threaded barrels, bayonet mounts, and telescopic stocks illegal in the United States from 1994 to 2004. This law was rendered immaterial, however, owing to poorly conceived definitions and a variety of adaptations on the part of domestic gun manufacturers; the industry was able to work its way around it. As the law's expiration date of September 2004 approached, it became clear that there was insufficient support in Congress to renew it. It passed out of law and, to date, has not been taken up anew.

put to the test by gun rights advocates. A Court of Appeals had upheld the restrictions, and when the case came to the Supreme Court it was initially expected that the justices might limit the scope of their ruling to the Chicago ban and its constitutionality. However, the conservative majority on the Court used the *McDonald* case to address the deeper issue of Second Amendment rights and their applicability to the states. In its 5–4 decision, the Court stated that the Second Amendment is to be regarded (under the Fourteenth Amendment's due process clause guaranteeing individual freedoms and protections) as ensuring the individual's right to bear arms. The opinion noted that certain firearms restrictions mentioned in the *Heller* case, such as those "prohibit[ing]…the possession of firearms by felons or mentally ill" as well as "laws forbidding the carrying of firearms in sensitive places such as schools and government buildings, or laws imposing conditions and qualifications on the commercial sale of arms," remain valid and are not affected by the *McDonald* ruling (*McDonald v. Chicago* 2010). But wholesale bans on guns in cities or other localities and burdensome restrictions on their access and use by individuals are prohibited under *McDonald.*

Important Perspectives

Groups and individuals who espouse a gun rights outlook are quick to highlight the apparent positive value of gun possession through the use of statistics on defensive gun use. In 1991, criminologist Gary Kleck argued that defensive use is widely successful: individuals with guns are more likely to prevent the completion of the attempted crime and are less likely to become injured during the event. However, the nature and extent of defensive use is hotly contested. Kleck and colleague Marc Gertz claim that defensive use is underreported, estimating as many as 2.5 million overall defensive gun uses per year (1995), whereas critics claim that the actual number is much smaller (owing to sampling and methodological biases), perhaps around 100,000 overall defensive gun uses per year (Cook, Ludwig, and Hemenway 1997). This disagreement is typical of competing research on gun policy.

Proponents of a strict gun control model point to evidence of the various gun-related costs borne by society. One of those costs may include an increased risk of victimization that accompanies gun possession. The use of firearms accounts for the second highest total of nonnatural deaths in the United States (behind motor vehicle accidents), and the overall homicide rate in the United States is significantly greater than that in other industrialized nations (McClurg, Kopel, and Denning 2002). The exact magnitude of the inequity is a matter of which set of statistics one chooses to use. Given the high prevalence of firearm-related homicide, one might presume that gun possession could pose a direct victimization risk if legal guns were used against their owners during the commission of a crime. The number and availability of stolen guns, which are frequently instrumental in the commission of violent crime, may also indirectly influence victimization risk for the rest of the population.

GUN MANUFACTURERS AND LIABILITY

In 2005 President George W. Bush signed the Protection of Lawful Commerce in Arms Act (PLCAA) (119 Stat. 2095 [2205]), a law aimed at prohibiting suits against gun manufacturers for injuries suffered by the unlawful misuse of their products. The perceived need addressed by the PLCAA was protection of the firearms industry from a wave of litigation against gun manufacturers and distributors that was often driven by local government officials claiming reimbursement for expenses caused by gun violence. The targeting of manufacturers as parties who were at least partly liable in some cases (as when guns were made to be easily converted to automatic weapons) was at the time hailed by gun control advocates and local law enforcement officials as an innovative and necessary legal solution. However, the Republican-controlled legislative and executive branches of the federal government saw matters in a different light and moved instead to protect manufacturers.

Costs may also be economic in nature. For groups concerned primarily about the costs rather than the benefits of guns, the debate over gun control has spilled over into disciplines such as public health, which has a unique perspective and responsibility as typical first responders to gun violence. The financial burden for emergency response, hospital care, and opportunity costs from lost wages due to gunshot injuries is enormous—around $2 billion by some estimates (Cook and Ludwig 2000, 65). Some researchers have begun to regard gun violence as analogous to a public health epidemic, best visualized with epidemiological models showing patterns of spatial distribution (Fagan, Zimring, and Kim 1998), similar to the spread of diseases such as influenza and requiring a similar mobilization of public resources to combat. Self-inflicted injuries carry a cost as well; gun-control advocates note that the prevalence of self-inflicted gunshots in the United States drives the overall trend in gun deaths, with more than 50 percent of gun-related deaths attributable to suicide (Cook and Ludwig 2000, 16–18).

In the 1990s, a well-organized movement, backed financially and philosophically by the NRA, began to generate grassroots support for "concealed carry" legislation. These laws require government officials to issue licenses to people who wish to carry concealed weapons, absent compelling reasons for denial (e.g., a history of mental illness, substance abuse problems, outstanding warrants, etc.); that is, such a license would be issued to anyone who applied and met minimum state-imposed criteria. Notably missing from the application process is an evaluation of the individual's need to carry a weapon, a controversial part of the concealed-carry debate. Proponents of these laws believe that the mechanism for private citizens to obtain licenses to carry concealed firearms would translate into a general deterrence of violent crime. In other words, more guns on the street would equal more opportunity for self-defense.

An interesting resource for the concealed-carry movement was John Lott Jr.'s book *More Guns, Less Crime: Understanding Crime and Gun-Control Laws* (Lott 1998). The book provides complex statistical analyses of the impact of shall-issue permitting laws on violent crime using 15 years of crime rate data for all counties in the United States. Lott reaches the conclusion that the adoption of shall-issue permitting laws results in a decrease for key violent crime rates such as homicide and rape, whereas the laws apparently cause small increases in less serious crime such as larceny and auto theft. He surmises that criminals behave in a manner consistent with rational motives, and increases in general deterrence (leading to the more widespread use of legally concealed weapons) trigger a change in specialization for career criminals. Lott also concludes that suicide and accident rates related to firearms are unaffected by shall-issue laws.

Despite the complex methodology and expansive data used in the analysis, Lott's conclusions in *More Guns, Less Crime* failed to convince some academics. A series of critical reviews of Lott's book appeared almost immediately in scholarly journals and the popular press. For example, researchers at Carnegie Mellon University reanalyzed Lott's original data in an effort to identify trends that could skew his results (Black and Nagin 1998). This reanalysis omitted a single state, Florida, which was hypothesized to bias Lott's original conclusions owing to a period of high violence from the international drug trade and instability regarding intensive legislative actions to control guns. The effect of removing Florida from the analysis was dramatic: nearly all effects of shall-issue laws on violent crime rates became nonsignificant.

Conclusion

The issue of gun ownership is unlikely to become less controversial in the near term. Indeed, the debates about the true benefits and costs of guns may continue for generations. The future of private gun possession in the United States is, to this point, a matter of constitutional entitlement. On a positive note, many key issues dealing with gun control that work on a nonpartisan basis (e.g., possession bans for the mentally ill) seem to enjoy a popular consensus in the United States and elsewhere. This may prove to be a philosophical common ground if comprehensive and balanced gun control reform is ever attempted.

On a more practical level, the issue of whether gun control has an effect on crime is largely unsettled. Evidence suggests that there may be a positive benefit of gun ownership in terms of lawful self-defense and deterrent value under certain circumstances and when the analyses are conducted using certain types of data. Contradictory evidece suggests that violent victimization rates increase with gun ownership and that guns carry a heavy societal price tag. Accelerated population growth, the rising cost of health care, and the expansion of certain political agendas suggest that the societal cost of guns may rise in the near future. Although violent crime may be generally in decline,

gun crime may rise in certain segments of the population that are most at risk, including minorities and young males. The precise nature of the increase and the appropriate policy response will be fiercely contentious issues.

See also **Right-Wing Extremism; School Violence; Interest Groups and Lobbying (vol. 1)**

Further Reading

Black D., and D. Nagin, "Do Right-to-Carry Laws Deter Violent Crime?" *Journal of Legal Studies* 27, no. 1 (1998): 209–219.

Brady Campaign to Prevent Gun Violence, http://www.bradycampaign.org

Burbick, Joan, *Gun Show Nation: Gun Culture and American Democracy.* New York: New Press, 2006.

Cook, Philip J., and Jens Ludwig, *Gun Violence: The Real Costs.* New York: Oxford University Press, 2000.

Cook, Philip J., Jens Ludwig, Jens and David Hemenway, "The Gun Debate's New Mythical Number: How Many Defensive Uses per Year?" *Journal of Policy Analysis and Management* 16, no. 3 (1997): 463–469.

Crooker, Constance E., *Gun Control and Gun Rights.* Westport, CT: Greenwood Press, 2003.

District of Columbia v. Heller, 554 U.S. (2008).

Doherty, Brian, *Gun Control on Trial: Inside the Supreme Court Battle over the Second Amendment.* Washington, DC: Cato Institute, 2009

Fagan, J., F. Zimring, and J. Kim, "Declining Homicide in New York City: A Tale of Two Trends." *Journal of Criminal Law and Criminology* 88, no. 4 (1998): 1277–1307.

Gallup, "Public Believes Americans Have Right to Own Guns." March 27, 2008. http://www.gallup.com/poll/105721/public-believes-americans-right-own-guns.aspx.

Hemenway, David, *Private Guns, Public Health.* Ann Arbor: University of Michigan Press, 2006.

Kleck, Gary, and M. Gertz, "Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun." *Journal of Criminal Law and Criminology* 86, no. 1 (1995): 150–182.

Kleck, Gary, *Point Blank: Guns and Violence in America.* New York: Aldine De Gruyter, 1991.

Lautenberg Amendment, 18 U.S.C. § 922(g)(8).

Lott, John R., Jr., *More Guns, Less Crime: Understanding Crime and Gun-Control Laws,* 2d ed. Chicago: University of Chicago Press, 1998.

Ludwig, Jens, and Philip J. Cook, *Evaluating Gun Policy: Effects on Crime and Violence.* Washington, DC: Brookings Institution Press, 2003.

McClurg, Andrew, David B. Kopel, and Brannon Denning, eds., *Gun Control and Gun Rights: A Reader and Guide.* New York: New York University Press, 2002.

McDonald v. Chicago, 561 U.S. ___ (2010).

Melzer, Scott, *Gun Crusaders: The NRA's Culture War.* New York: New York University Press, 2009.

National Rifle Association Institute for Legislative Action, "The Constitution, Bill of Rights, and Firearms Ownership in America" (2006). http://www.nraila.org/Issues/Articles/Read.aspx?ID=192/.

Spitzer, Robert J., *Gun Control: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2009.

Tahmassebi, Stefan B., "The Second Amendment and the U.S. Supreme Court.," National Rifle Association Institute for Legislative Action (2000), http://www.nraila.org/Issues/Articles/Read.aspx?ID=7/.

United States v. Miller, 307 U.S. 174 (1939).

U.S. v. Lopez, 514 U.S. 549 (1995).

Wellford, Charles, John V. Pepper, and Carol V. Petrie, eds., *Firearms and Violence: A Critical Reader.* Washington, DC: National Academies Press, 2005.

H

HUMAN SMUGGLING AND TRAFFICKING

Claudia San Miguel and Annie Fukushima

The concerns about illegal immigration expressed in the popular media, such as television news shows and talk radio programs, can be misleading. These shows often overlook the factors underlying migration and disregard the jeopardy that migrants face in dealing with the smugglers who bring them across the border or the traffickers who enslave them. Despite the dangers involved, many undocumented migrants come to the United States to look for work or to join their families, hoping to settle permanently. Others, entering the country under even less favorable circumstances, come at the hands of human traffickers. Human smugglers and traffickers are international criminals. Nevertheless, it is not surprising that as border-enforcement efforts continue to raise the stakes for both migrants and smugglers/traffickers, incidents of coercion and predation will increase in number and intensify in degree.

Although persons smuggled into the country most often are looking for work, women and children are trafficked both into the United States and internationally for the purpose of forced prostitution and enslavement. Of necessity, this is a process involving trickery and coercion. The United States has responded by passing legislation and directing efforts toward international cooperation. This legislation may represent a good faith effort on the part of lawmakers, but efforts on the ground to stop the massive problem of human smuggling and trafficking have produced mixed results.

Background

The process of globalization has minimized the impact of the distance between communities across the world. Although global migration is not new, the speed with which it is occurring and the shifting dynamics are. Why do people migrate? Their reasons may include finding a job, reunifying family, getting married, or fulfilling the demand for labor by migrants. Nevertheless, in some cases migrants lose control and are maneuvered into criminal activities or enslavement under conditions of coercion by smugglers or traffickers. Those who are categorized as undocumented immigrants are welcomed as cheap and dispensable labor but refused permanent legal resident status. This makes modern migrants from countries that are considered the global south (developing nations), particularly women and children from these countries, vulnerable to criminals.

In the 20th and 21st centuries, the gender dynamics of global migration have shifted. Since 1970, the migration of women has increased on a global scale in a phenomenon referred to as the feminization of migration. Although women have yet to earn equal hourly wages in most countries, including the United States, they now constitute 50 percent of the world's migrants. Women migrants are impacted by the creation of binary categories that have developed to label migration as either coerced (trafficked) or voluntary (smuggled). Such simple polarizations of migration are insufficient to describe the nature of the migration process and the vulnerability of women to human traffickers.

The U.S. West Coast has a deeply embedded migratory relationship with Latin America—one that generates racialized (race-based) perceptions of human trafficking and smuggling. Americans stereotype Mexico and Latin America as regions involved in smuggling; they assume that the United States has little or no criminal involvement. The experiences of those involved, however, reveal a complex picture of interlinkage between countries of the so-called global north (industrialized nations) and the global south.

Human Smuggling

Undocumented migrants cross U.S. national borders without a border-crossing identification card. These cards are issued by U.S. consulates to visitors for tourism or business, temporary workers, and refugees. These cards are denied to individuals who cannot establish sufficient financial means or pass the security check required of entrants from countries designated as places that harbor terrorists.

The United States has the largest and most diverse flow of undocumented workers among the developing nations. Undocumented Mexicans, Central Americans, and other Latin American workers are employed in agriculture, manufacturing, and the service sector, including jobs ranging from maids to waiters. This is a historical process that began as early as the 1940s, when the United States implemented the Bracero program to legally bring migrant workers into the United States. Today, although many foreign-born individuals are admitted as legal immigrants, a substantial number enter

as undocumented migrants, often assisted by smugglers. They may stay for a period of time and then return to their country of origin, or they may remain permanently as unauthorized immigrants. Although people who are smuggled enter the United States illegally, they often face the additional risk of being "trafficked" for nefarious purposes. A migrant who seeks to enter voluntarily but is coerced into forced prostitution or enslaved to perform labor has been trafficked by organized crime.

Since 9/11, protection of the U.S. border has been a key focus of U.S. national security. One goal of the U.S. Border Patrol is to combat human smuggling and human trafficking. However, even as U.S. borders have been tightened, immigrants looking for employment opportunities continue to enter the United States from Latin America. A 2008 Pew Hispanic Center survey showed that the number of illegal immigrants entering the United States had declined from an average of 800,000 per year in 2000–2004 to 500,000 per year in 2005–2008. U.S immigrants are racially and ethnically diverse, but the mass media tend to focus on antismuggling initiatives aimed at Latin Americans coming through the southern U.S. border. In San Diego, California, and other major crossing points, large-scale crackdowns on human smuggling rings occasionally take place. Employers in the agricultural and service sectors, in particular, cautiously welcome unauthorized immigrants, but the tightening of U.S. borders and the arrest of migrant laborers and smugglers have made employers' access to such cheap labor more difficult.

Human Smuggling and Coercion

It is often assumed that those who are smuggled across national boundaries undertake the journey of their own free will; they are neither coerced into acting nor deceived in any significant way because they have entered into contracts or paid for the service. Those who are smuggled are grouped with other, voluntary migrants who come to pursue economic opportunities (economic migration) or to be reunited with their families.

Human smuggling is the facilitation, transportation, attempted transportation, or illegal entry of a person or persons across an international border through deception, as through the use of fraudulent documents or by other means involving no identification. Definitions of smuggling in U.S. policy suggest that the person being smuggled is cooperating with the smuggler. These definitions do not fully take account of actual or implied coercion and consider that the illegal entry of one person is being facilitated by another (or more than one). The use of this notion of cooperation, however, is debatable, as often some element of coercion or deception is involved.

Although the U.S. public focuses on the smuggling of Mexican and, to a lesser extent, Central American and Latin American undocumented immigrants, this is just part of a much larger picture. Smuggling cannot be understood in a vacuum because it is a complex transnational phenomenon. It is not only a U.S. reality but a global one. Human smuggling is not limited to the United States, although the United States has the largest

number of unauthorized immigrants. Other countries that have been and remain major destinations include Germany, Canada, and Australia.

Human smuggling is the process of bringing in unauthorized entrants. According to the U.S. Immigration and Naturalization Act, it is a felony for a smuggler and a civil offense (at least for the first incident) for a migrant to engage in this activity. The methods of smuggling include self-smuggling, smuggling by professional organizations/networks, and smuggling by independent entrepreneurs known as coyotes in the case of Latin American emigration or snakeheads in the case of Asian emigration. This criminal activity is very profitable. In the first decade of the 21st century, a Chinese migrant might pay from $25,000 to $30,000 to attempt unauthorized entry to the United States. The smuggling fee itself places international migrants into a coercive situation because of the length of time it takes for a person and relatives from a developing country to pay off such a debt. If payment is delayed, relatives in the country of origin may be threatened.

Human smuggling involves high risks for both smugglers and migrants. A coyote—also known as a *pollero*—is a person paid to smuggle a migrant from Mexico, Central America (including El Salvador, Guatemala, and Honduras), or Latin America across the U.S.-Mexico border. Coyotes are despised by some on both sides of the border for profiting from migrants. As the borders have become increasingly militarized, dependency on smugglers has increased, and smugglers are able to coerce ever larger payments from undocumented immigrants. Coercion becomes intensified when smugglers connected to drug traffickers ask immigrants to carry in marijuana or other drugs as part of their fee. Coercion has also increased because urban border enforcement has increasingly pushed migrants to cross in more remote and often more dangerous areas, requiring that they push themselves beyond their normal limits. Environmental factors, such as summer heat exposure in the Arizona desert, can cause serious physical harm and even death. In some cases smugglers abandon incapacitated members of a group, who can only hope that a U.S. Border Patrol officer will find them before dehydration, heat stroke, and starvation end their lives. Others risk suffocation while hidden in the backs of trucks.

Undocumented smuggling of Asian emigrants has historically utilized maritime routes and received relatively less media attention. Maritime smuggling has been associated with the rape of women migrants, malnourishment, and unhealthy conditions of concealment. Snakeheads smuggling Chinese into the United States are reported to have stopped using maritime routes through Seattle, Washington. The new route is by air. One positive, indirect consequence of this change is a reduction of exposure to harm owing to the short duration of attempted entry. In 2004, the United Nations Convention signed the Smuggling of Migrants by Land, Air, and Sea Protocol at its Vienna meeting to control human smuggling, trafficking, and transnational organized crime.

Global smuggling networks include a wide variety of source countries and routes, including the often neglected Canadian border. Cases of human smuggling through

Canada from Asia and Eastern Europe were highlighted during a 2006 indictment in Detroit, Michigan, which revealed that undocumented migrants sometimes rode inside or held onto the sides of freight trains traveling through rail tunnels or were smuggled in ferries, car trunks, the cargo trailers of semi trucks, and, in some cases, small boats. Even in such instances coercion can be involved, the migrants sometimes being unaware of what is expected of them until the time of the crossing.

Regardless of how much is paid and where migrants are from, the end result is the same: migrants who are smuggled into a country reach their destination only if they survive the process. In 2000, more than 100 Chinese were found hiding in several ships in U.S. and Canadian ports, including three who arrived dead in a cargo ship called the *Cape May;* they died of malnutrition and dehydration. Migrants contracting with human smugglers must deal with fear as well as the risk of death.

Forced Migration

Forced migration—or the flight of refugees and displaced individuals fleeing ethnic cleansing, political conflict, famine, and other traumatic situations—often involves a degree of coercion. It is most often a situation of political coercion but is sometimes due to traumatic necessity. Displaced people around the globe are diverse but they have all been affected by economic and political turmoil in their home countries. A displaced person is often a refugee or asylum seeker.

Refugees

Refugees are, by definition, individuals who, because of a conflict involving the nation-state in which they live, are forced to flee. This type of forced migration is especially severe when entire groups face persecution on the basis of their ethnicity. The legal concept of a refugee was created in 1951, when a Refugee Convention formulated by a United Nations Conference on the Status of Refugees and Stateless Persons was adopted. Individuals protected under the category of refugee flee their countries because of persecution or conflict. Their primary international oversight organization is the United Nations' High Commission on Refugees (UNHCR), which was developed in conjunction with the UN protocol to protect, assist, and provide monetary support for refugees.

Central American Refugees

Mexican, Central American, and Latin American migration has been treated as something that is freely motivated, as compared with migrations from Asia or Africa. This has created controversy, because the United States was involved in covert warfare in Central America during the 1980s and chose to treat displaced individuals and families as economic migrants rather than refugees. Immigrant advocates in the United States took up these migrants' cause by documenting the existence of death squads and other

political persecution during the Central American civil wars. As a result, there have been several periods of legalization of Central Americans in the United States resulting from judicial decisions. Currently, Latin America is not considered a major region producing forced migration.

Human Trafficking

Trafficking in persons has been defined as the modern-day form of slavery and is perhaps among the most profitable transnational crimes next to the sale of drugs and arms. This transnational crime has been subject to international and national attention. Publicity and human rights advocacy has helped pave the way for the creation of international and national laws to stop the sale and enslavement of persons. However, controversy exists over the extent of the protection these laws provide, especially the Victims of Trafficking and Violence Prevention Act of 2000 (VTVPA), a law drafted and implemented by the United States. Because a significant number of persons who are trafficked become vulnerable victims of this crime owing to grim economic circumstances in their native countries, controversy also exists over the extent to which victims contribute to their own victimization and whether the United States should provide any legal protection for them. Opposing views focus on the extent to which the law should protect victims (such as prostitutes, sex workers, and agricultural workers) who might initially have agreed to be transported across national or international borders in order to find employment and then became enslaved.

Defining the Problem

Trafficking in persons has a broad definition. The Protocol to Prevent, Suppress, and Punish Trafficking in Persons (the Palermo Protocol), which is the leading and most recent international legislation to stop the sale and enslavement of persons, defines human trafficking in persons as

> The action of: recruiting, transporting, transferring, harboring, or receiving persons
>
> By means of: the threat or use of force, coercion, abduction, fraud, deception, abuse of power or vulnerability, or giving payments or benefits to a person in control of the victim
>
> For the purpose of: exploitation, which includes exploiting the prostitution of others, sexual exploitation, forced labor, slavery or similar practices, and the removal of organs.

Using the international definition as a foundation, the U.S. Congress adopted the VTVPA, which is the leading U.S. law against trafficking. This law categorizes human trafficking into two primary components: sex trafficking and labor trafficking. Both types of trafficking are defined as involving the recruitment, harboring, transportation,

provision, or obtaining of a person. Sex trafficking is for the purpose of initiating a commercial sex act by force, fraud, or coercion; the law particularly focuses on sex trafficked individuals who are below 18 years of age, specifying even greater penalties in such cases. Labor trafficking involves the use of force, fraud, or coercion to subject a person to labor under conditions of involuntary servitude, peonage (debt bondage, often to work off a smuggling fee), or slavery.

Human trafficking can also be understood within the context of the methods and/or activities of the trafficker(s)—those who actively engage in the sale and enslavement of persons. The trafficker usually recruits persons, either adults or children, to be sold into slavery. Recruitment generally involves some form of deception or fraud, such as lying about finding and/or providing legitimate employment for the recruited. Recruitment can also involve the abduction of persons. The trafficker then needs to make the transaction or sale of the person in exchange for money or another service. This usually involves transporting a person to a specific destination. Finally, the receipt or transfer of the person to the paying customer or client must be made. The threat or use of force or any other means of coercion is present throughout all phases of the sale. Additionally, once the transfer to the paying customer has been made, the trafficked person is further exploited by being forced to work as a prostitute, agricultural worker, domestic servant, or anything else against her or his will. Although human trafficking may not necessarily involve the sale, transportation, or transfer of a person across international borders, victims of this crime are usually sold on an international scale, human trafficking must be classified as a transnational crime.

The Scope and Nature of Human Trafficking

Although since the fall of the Soviet Union in the early 1990s the sale of drugs and arms have become the most profitable transnational crimes, human trafficking remains well known in the 21st century. Today, it is estimated that 21 million people are victims of human trafficking. In the United States alone, government estimates indicate that between 600,000 and 800,000 individuals are victims of trafficking each year. One of the reasons for this is that the sale of human beings is highly profitable. In fact, it is estimated to be the third most profitable international crime next to the sale of weapons and drugs. The profits of the global human trafficking enterprise are estimated at $7 billion to $10 billion a year. Other reasons for its prevalence may be the belief (of the traffickers) that there is a relatively low risk of being apprehended and punished. Law enforcement's preoccupation with stopping the sale of weapons and drugs leaves criminals with the impression that human trafficking laws will not be enforced and that their chances of being arrested and incarcerated are minimal at best. This false sense of security also drives the willingness of traffickers to continue their work.

Human trafficking results in a form of slave labor or involuntary servitude. It is a venture that thrives on the exploitation of humans for financial or economic reasons. In fact, one could argue that human trafficking is a more profitable business than other transnational crimes, such as arms trafficking or drug smuggling, because humans can be sold over and over again. Thus, unlike drugs and arms, which are usually sold to only one customer for a one-time profit, humans can be resold to different customers and sold numerous times for an exponential amount of profit. Typically, victims of human trafficking are sold and enslaved to perform a variety of jobs, the most common of which involves working in some capacity in the sex industry as a prostitute or exotic entertainer. This is the case for most women and children.

Children are often trafficking victims of sex tourism operations. Sex tourism or child sex tourism occurs when people of one country, usually because of the strict enforcement of human trafficking laws, travel to a foreign location for sexual gratification. They travel with the knowledge the government of the country being visited is unwilling or unable to enforce laws against trafficking or prostitution. Such child sex tourism has been thriving in Mexico and Latin America. Children are also used as camel jockeys (camel riders in races) in some countries or forced to work as domestic servants or in sweatshops.

In most cases, victims of human trafficking are forced to do various kinds of jobs because the traffickers insist that they must pay an impending debt—money ostensibly used by the trafficker to purchase fraudulent travel documents or pay for travel expenses. Essentially, the traffickers create a situation of debt bondage where the victims must provide services to earn their freedom. However, freedom is rarely a possibility because the trafficker is constantly adding to the debt. Overinflated living expenses, medical expenses, and other expenses, including the trafficker's commission, keep the victim from earning her or his freedom.

There are some who wonder why victims do not attempt to escape their captors and why they choose to remain enslaved. The answer is actually quite simple. Victims do not choose to remain enslaved and they do not attempt to escape for fear of harm to themselves or their families. Victims are continuously warned that if they try to flee or call the authorities, they will be killed. Harm to family members is also threatened. The psychological abuse of constantly fearing for one's life or the lives of loved ones is enough to cripple any attempts to escape.

Psychological manipulation at the hands of the traffickers is not the only factor that keeps victims from escaping. Most victims fear that they will be arrested, since most are without legal documents or authorization. What makes matters worse is that travel visas, even if fraudulent, are taken from the victims as soon as they reach their place of destination. Fear of arrest for violating immigration laws keeps victims from contacting authorities. Physical abuse is also a factor that keeps victims from escaping. In addition, constant supervision by their captors makes it virtually impossible for these people to attempt an escape.

Current Efforts to End Trafficking

The international community has been tackling the problem of human trafficking since the early 1900s, when a 1904 international treaty banned trafficking in white women for prostitution—the so-called white slave trade. In the mid-20th century, further international treaties were created to address this problem. For instance, in 1949, the United Nations, of which the United States is a member, signed an international treaty to suppress the sale of humans. More recently, in 2000, a total of 148 countries were signatories to an international treaty to prevent, suppress, and punish those who traffic in persons. This international treaty, known as the Palermo Protocol because it was signed by the various nations in Palermo, Italy, makes it a crime to recruit, transfer, harbor, or purchase a person for the purpose of any type of exploitation. It also makes the sale of organs a crime. The Palermo Protocol considers a victim's consent irrelevant, meaning that any person who is abducted, deceived, forced, or suffers other forms of coercion or initially agrees to be transported across borders shall be treated as a victim if she or he suffers any form of exploitation. The victims shall receive help to return to their country or city of origin and shall receive any medical, legal, or psychological assistance needed.

Conclusion

Human smuggling and trafficking have come to be two of the most profitable transnational crimes. Their profitability is highly dependent on a steady flow of desperate, vulnerable, and exploitable persons and a steady supply of customers in the United States willing and able to benefit from such transactions. Like other economic ventures, human smuggling and trafficking thrive from the supply of seekers and victims and the demand for them. These phenomena are thus significantly affected by global factors, such as economic and political instability, both of which are effects of globalization. Although globalization has certainly helped make the transport and/or sale of humans the transnational enterprises that they are, human smuggling and trafficking have extensive histories. Both flourished despite early- and mid-20th-century agreements and laws to control their spread. Today, both have once again captured the attention of the world and become high law enforcement priorities for the United States. Perhaps they have become so in part because the United States is a prime destination country both for illegal migrants and victims of trafficking.

See also **Border Fence; Drug Trafficking and Narco-Terrorism; Immigration and Employment Law Enforcement; Globalization (vol. 1); Immigrant Workers (vol. 1); Immigration Reform (vol. 3)**

Further Reading

Bales, Kevin, *Disposable People: New Slavery in the Global Economy.* Berkeley: University of California Press, 2004.

Batstone, David, *Not for Sale: The Return of the Global Slave Trade, and How We Can Fight It.* New York: HarperOne, 2007.

DeStefano, Anthony M., *The War on Human Trafficking: U.S. Policy Assessed.* New Brunswick, NJ: Rutgers University Press, 2007.

Gaynor, Tim, *Midnight on the Line: The Secret Life of the U.S.-Mexico Border.* New York: Thomas Dunne Books, 2009.

Kyle, David, and Rey Koslowski, eds., *Global Human Smuggling: Comparative Perspectives.* Baltimore, MD: Johns Hopkins University Press, 2001.

Ngai, Mai, *Impossible Subjects: Illegal Aliens and the Making of Modern America.* Princeton, NJ: Princeton University Press, 2004.

Payan, Tim, *The Three U.S-Mexico Border Wars: Drugs, Immigration, and Homeland Security.* Westport, CT: Praeger, 2006.

Skinner, E. Benjamin, *A Crime So Monstrous: Face-to-Face with Modern-Day Slavery.* New York: Free Press, 2009.

Zhang, Sheldon X., *Smuggling and Trafficking in Human Beings: All Roads Lead to the United States.* Westport, CT: Praeger, 2007.

I

IDENTITY THEFT

Bernadette H. Schell

Identity theft, or masquerading, is a legal term used to define the malicious theft and consequent misuse of someone else's identity to commit a crime. Land-based identity theft can occur if a burglar, say, breaks into someone's home and steals the homeowner's credit cards, driver's license, and Social Security card and then uses these to buy things using a false identity. Identity theft, or masquerading, is fraudulent criminal behavior (Schell and Martin 2005).

In the modern age, identity theft can and does occur in the virtual world. In this venue, it often involves the cybercriminal's hacking into a computer network to obtain personal information on online users—such as their credit card numbers, birth dates, and Social Security numbers—and then using this information in an illegal manner, such as purchasing things with the stolen identity or pretending to be someone of higher professional status to gain special and undeserved privileges. Because of the huge financial and reputational harms it can cause for victims, identity theft is one of the fastest-growing and most devastating crimes in the United States and globally.

On February 21, 2005, ChoicePoint, Inc., a data warehouse having 17,000 business customers, had its massive database of client personal information hacked. Consequently, the company said that about 145,000 consumers across the United States may have been adversely affected by the breach of the company's credentialing process. The company said that the criminals not only obtained illegal access but used stolen

identities to create what seemed to be legitimate businesses wanting ChoicePoint accounts. The cybercriminals then opened 50 accounts and received abundant personal data on consumers—including their names, addresses, credit histories, and Social Security numbers (Weber 2005).

As a result of the ChoicePoint breach and those occurring in 2005 at the LexisNexis Group (affecting 310,000 clients), the Bank of America (affecting about 1.2 million federal employees having Bank of America credit cards), and Discount ShoeWarehouse (affecting about 1.2 million clients), U.S. politicians called for hearings and ramped-up regulations to protect consumers against identity theft or masquerading. These breaches also prompted many U.S. states to propose more than 150 bills aimed at regulating online security standards, increasing identity theft and fraud protections, increasing data broker limitations, increasing limits on data sharing, and improving the process to clients regarding security breach notifications (Associated Press 2005; McAlearney 2005).

According to a recent article in *Forbes,* identity theft and related online fraud increased considerably in 2009. The article cited over 11 million victims—at an estimated cost of $54 billion. A year earlier, just under 10 million people were allegedly targeted—at an estimated cost of $48 billion. Interestingly, the cost to individual victims as a result of network data breaches has declined from $498 in 2008 to $373 in 2009. Who, then, is covering the costs for the personal harms inflicted on innocent victims as a result of identity theft? Increasingly, affirm the experts, it is the financial institutions to whom land-based and online citizens entrust their money and from whom they receive assurances of privacy protection regarding personal information. Even as the cost of fraud mitigation continues to spiral out of control, financial institutions are bringing the out-of-pocket expenses for identity theft victims as close to zero as possible so as to maintain their clients' confidence in the system. Losing customers over the longer term because of fractured consumer confidence translates into the institutions' investing in shorter-term remedies for assisting identity theft victims to become financially and psychologically "whole" again as quickly as possible (Merrill 2010).

The Four Critical Elements of Traditional and Identity Theft Crimes

According to legal expert Susan Brenner (2001), both traditional land-based crimes and cybercrimes like identity theft cause *harm*—to property, persons, or both. Some innocent victims of identity theft even incur prison records when false criminal charges are filed. As in the real world, there are politically motivated crimes, controversial crimes, and technical nonoffenses in the virtual world. In U.S. jurisdictions and elsewhere, traditional and cybercrimes like masquerading involve four key elements:

- *Actus reus* (wrongful act, or the physical component of a crime)
- *Mens rea* (a culpable mental state)
- *Attendant circumstances* (the presence of certain necessary conditions)
- *Harm* (to either persons or property, or both)

Perhaps an example can illustrate these critical elements more clearly. One such identity theft case that made world headlines occurred in 2001. It involved U.S. waiter Abraham Abdullah., a hacker who was arrested and imprisoned for defrauding financial institutions of about $20 million by using an identity theft scheme. Abdullah selected his targets' identities from the Forbes 400 list of America's wealthiest citizens; his targets included Steven Spielberg, Oprah Winfrey, Martha Stewart, and Warren Buffett. Then, with the help of his local library's computer, Abdullah used the Google search engine to glean financial information about these wealthy U.S. citizens. He also used the information obtained from forged Merrill Lynch and Goldman Sachs correspondence to persuade credit reporting services (like Equifax) to give him detailed financial reports on the targets. Such reports were then used by Abdullah to dupe banks and financial brokers into transferring money to accounts controlled by him (Credit Identity Theft.com 2008; Schell, Dodge, and Moutsatsos 2002).

This case illustrates that with mere access to the library's computer and the Internet, this cybercriminal was able to initiate a surprisingly simple process of masquerading by gaining unauthorized access to credit card and brokerage accounts. His scheme was revealed when he sent a fake e-mail message to a brokerage house requesting a transfer of $10 million to his bank account in Australia from an account owned by millionaire Thomas Siebel. Abdullah, an American, was tried according to U.S. jurisdictional law and sent to prison (Schell 2007).

In terms of the four elements of the crime, Abdullah gained entry into and unlawfully took control of the property—the sensitive information in credit card and brokerage accounts (*actus reus*). He entered with the intent of depriving the lawful owner of sensitive information (*mens rea*). By society's norms, Abdullah had no legal right to gain access to credit card and brokerage accounts of targeted wealthy individuals for his own financial gain. He clearly was not authorized to do so by the rightful owners (*attendant circumstances*). Consequently, Abdullah was liable for his unlawful acts, for he illegally entered the private accounts (i.e., criminal trespass) to commit an offense once access was gained (i.e., identity theft and fraud). As the targeted users eventually realized that *harm* was caused to their financial property, the judge hearing the evidence ruled that Abdullah should spend some time behind prison bars.

Phishing and Pharming: Relatively New Forms of Identity Theft

Within the past several years, a relatively new form of identity theft has emerged called "phishing." This refers to various online techniques used by identity thieves to lure unsuspecting Internet users to illegitimate Web sites so that the thieves can "fish for" sensitive personal information—to be later used for criminal acts like identity theft and fraud. These illegitimate or rogue Web sites are commonly designed to look as though they came from legitimate, branded, and trusted businesses, financial institutions, and government agencies. Often the cyberthieves deceive vulnerable Internet users into

disclosing their financial account information or their online usernames or passwords (Public Safety Canada 2009).

The more aware Internet users receiving phishing emails from supposedly legitimate banks or financial institutions are likely to realize that the cyberthieves may have used spamming techniques (i.e., mass e-mailing) to send the same message to thousands of people. Many of those receiving the spam do not have an account or client relationship with the business or financial institution sending the said e-mail, so they may just ignore the message. The cybercriminals creating phishing e-mails, however, hope that some e-mail recipients will actually have an account with the legitimate business; thus the recipients may believe that the e-mail has come from a "trusted" source and will therefore release the requested personal information (Public Safety Canada 2009). According to a 2004 report released by Gartner, Inc., an IT marketing research firm, phishing exploits cost banks and credit card companies an estimated $1.2 billion in 2003—and since then the costs have continue to climb.

Like phishing, pharming is a technique used by cybercriminals to get personal or private (typically financially related) information by "domain spoofing." Instead of spamming targets with ill-intended e-mail encouraging them to visit spoof Web sites appearing to be legitimate, pharming poisons a domain name system server by putting false information into it. The outcome is that the online user's request is redirected elsewhere. Often, the online user is totally unaware that this process is occurring because the browser indicates that the online user is at the correct Web site. Consequently, Internet security experts view pharming as a more of a serious menace, primarily because it is more difficult to detect. In short, although phishers try to "scam" targets on a one-on-one basis, pharming allows ill-intentioned cybercriminals to scam large numbers of online targets all at once by effectively using the domain spoofing technique (Schell 2007).

What, therefore, should Internet users do about phishing and pharming? According to the U.S. Department of Justice and Canada's Department of Public Safety and Emergency Preparedness, Internet users should keep three points in mind when they see e-mails or Web sites that may be part of a phishing or pharming scheme (Public Safety Canada 2009):

1. Recognize it. If one receives an unexpected e-mail from a bank or credit card company saying that one's account will be blocked if one does not confirm the billing information, one should *not* reply or click on any links in the e-mail.
2. Report it. One should contact the bank or credit card company if one has unwittingly supplied personal or financial information. One should also contact the local police, who will often take police reports even if the crime may ultimately be investigated by another law enforcement agency. The identity theft case should also be immediately reported to the appropriate government agencies. In the United States, online users should contact the Internet Crime

Complaint Center, or IC3 (http://www.ic3.gov/). In Canada, online users should contact Phonebusters (the antifraud online group) at info@phonebusters.com. Canadian and American agencies such as these are compiling data about identity theft to determine trends in this domain.

3. Stop it. Online users should become familiar with the safe online practices of one's financial institutions and credit card companies; typically, for example, such businesses will not utilize e-mail to confirm an existing client's information. Moreover, a number of legitimate targeted financial institutions have distributed contact information to online users so that they can quickly report phishing or pharming incidents. Finally, online users having the Internet Explorer browser can go to the Microsoft security home page to download special fixes protecting them against certain phishing schemes.

Other Legal Means for Controlling Identity Theft and Fraud

Because of its often anonymous and decentralized composition, the Internet is fertile ground for identity theft and fraud. Fraud, defined by law, is viewed as an intentional misrepresentation of facts made by one person, knowing that such misrepresentation is false but will, in the end, induce the other person to act in some manipulated fashion resulting in injury, harm, or damage to the person manipulated. Thus, fraud may include an omission of facts or an intended failure to state all of the facts. Knowledge of the latter would be needed to prevent the other statements from being misleading. In cyberterms, spam is often sent in an effort to defraud another person into purchasing a product or service that he or she has no intention of purchasing. Fraud can also occur through other means, such as online gaming, online auctions, or false claims of inheritance or lottery wins (Schell 2007).

Recently in the United States, the Sarbanes-Oxley Act (SOA) was passed as a reaction to accounting misdeeds in companies like WorldCom and Enron, but its passage has fraud implications as well, particularly with regard to online personal information storage. With the vast amounts of personal information stored on company computers, fraud opportunities abound. A major problem prompting the passage of the SOA was that companies storing large amounts of information have tended to give little thought to what is being stored in company or institutional networks—or how securely it is being stored. Consequently, occasional occurrences of fraud or alterations of data by hackers have gone undetected. Some experts have argued that, rather than spending lots of money to store data in accordance with SOA compliance provisions, companies should allocate funds to determine exactly what kinds of information must be stored and for how long (Schell 2007).

In the spring of 2010, a number of Web site companies—including Google, Microsoft, and Yahoo—faced consumer and advocacy group backlash for keeping Internet search records for too long. These companies were told in writing by European Union (EU)

officials probing possible breaches of EU data privacy law that "their methods of making users' search data anonymous" continue to breach EU data protection rules. The group also told Google—the world's largest search engine—to shorten its data storage period from nine months to six months or face harsh penalties for noncompliance. Shortening the data storage period would adversely affect the search engine companies' potential for generating advertising revenue, for they rely on users' search queries to target more specific advertising. It is important to note that search engine companies are competing for online market share, whereby consumer queries are expected to generate a whopping $32.2 billion in advertising revenue just for 2010. Technically speaking, a user's search history contains a footprint of the user's interests and personal relations. This very personal information can be misused in many ways, so consumer protections are required (Bloomberg News 2010).

Also in the spring of 2010, following numerous complaints from online users, the social networking Web site Facebook announced four reforms to more easily control access to their personal data. The complaints started when Facebook announced features like "instant personalization," which tailors other Web sites to users' Facebook profiles. In fact, so many online consumers became irate with Facebook that thousands of them planned to "de-friend" the $24 billion social media corporation as a sign of protest on Monday, May 31, 2010 (Zerbisias 2010).

In a news conference on May 26, 2010, Facebook CEO Mark Zuckerberg said that the company had offered a lot of controls to date, but if consumers found them too hard to use, then consumers won't feel that they have enough control—so the company needed to improve things. The following four reforms were announced to make it easier for online consumers to decline the instant personalization feature: (1) one simple control was created so users can see the content they post—everyone, friends of their friends, or just their friends; (2) the amount of basic information that must be visible to everyone has also been reduced, and the information fields will no longer have to be public; (3) the company has made it simpler for users to control whether applications and Web sites can access any of users' information; and (4) with these changes, the overhaul of Facebook's privacy model was said to be complete ("Facebook" 2010).

Despite these announced reforms, Canada's Office of the Privacy Commissioner warned Facebook that the company still was not complying with Canadian federal privacy laws. The Office noted that Facebook's new settings continue to require users to publicly reveal their names, profile information, pictures, gender, and networks to the broader Internet population. Under Canadian law, companies are bound to give consumers full control over how their personal data are used, thus enabling them to curb identity theft and affiliated cybercrimes. The office put Facebook on notice that it will continue to monitor the situation to ensure that the social networking site complies with the law (McNish and El Akkad 2010).

Identity Theft, Phishing, and Pharming: Defying the Online Tenets of Privacy, Security, and Trust

Identity theft, phishing, and pharming defy the basic online tenets of privacy, security, and trust (PST). Recent public surveys have shown that a number of consumers are still afraid to buy goods and services online because they fear that their personal information will be used by someone else. In recent times, trust seals and increased government regulation—such as the SOA—have become two main ways of promoting improved privacy disclosures on the Internet. Trust seals often appear on e-business Web sites—including green Trust images, the BBBOnLine (Better Business Bureau OnLine) padlocks, and a host of other privacy and security seals. In fact, some companies are paying up to $13,000 annually to display these logos on their Web sites in hopes of having consumers relate positively to their efforts to provide online privacy (Schell and Holt 2010).

Generally, businesses and government agencies take two kinds of approaches to prevent security breaches: (1) proactive approaches to prevent security breaches—such as preventing hackers from launching attacks in the first place (typically through various cryptographic techniques) and (2) reactive approaches—by detecting security threats "after the fact" and applying the appropriate fixes or "patches." These two approaches combined generally allow for comprehensive network solutions (Schell and Holt 2010).

Without question, a major barrier to the success of online commercial and social networking Web sites has been the fundamental lack of faith between business and consumer partners. This lack of trust by consumers is largely caused by their having to provide detailed personal and confidential information to companies on request. Also, when purchases have been made online, consumers fear that their credit card numbers may be used for purposes other than those for which permission was given. And from the business partner's trust vantage point, the company is not really sure if the credit card number the consumer gives is genuine or in good credit standing. In short, "communicating" with unknowns through the Internet elicits two sets of questions that call for reflection: First, what is the real identity of the other person(s) on the Internet, and can their identities somehow be authenticated? Second, how reliable are the other persons on the Internet, and is it safe to interact with them (Schell and Holt 2010)?

To respond to these queries, in recent years a number of products have been developed to assist in the authentication process, including the following (Schell 2007):

- Biometrics, which assesses the users' signatures, facial features, and other biological identifiers
- Smart cards, which contain microprocessor chips running cryptographic algorithms and store a private key
- Digital certificates, which contain public or private keys—the value needed to encrypt or decrypt a message

- SecureID, a commercial product using a key and the current time to generate a random number stream that is verifiable by a server, thus ensuring that a potential users puts a verifiable number on the card within a set amount of time (such as 5 or 10 seconds)

The Bottom Line

Despite the goodwill and multiple technical and legal means to protect privacy, security, and trust provisions online, should we affirm that online consumers can rest assured that cyberspace is a risk-free environment in which they can safely communicate with others, buy things, and socially network? To answer this question, on March 4, 2005, a team of researchers at Seattle University "surfed" the Internet with the intent of harvesting social insurance and credit card numbers. In less than 60 minutes, they found millions of names, birth dates, and Social Security and credit card numbers—using just one Internet search engine, Google. The researchers warned that by using the right kind of sophisticated search terms, a cybercriminal could even find data deleted from company or government Web sites but temporarily cached in Google's extraordinarily large data warehouse. The problem, the researchers concluded, was not with Google per se but with companies allowing Google to enter into the public segment of their networks (called the DMZ) and index all the data contained there. Although Google and other search engine companies do not need to be repaired, companies and government agencies must understand that they are exposing themselves and their clients by posting sensitive data in public places. The bottom line is that even today, with many provisions in place to keep online consumers safe, there remain identity theft and related crime risks (Schell and Martin 2006).

See also **Cybercrime; Advertising and the Invasion of Privacy (vol. 1); Internet (vol. 4); Surveillance—Technological (vol. 4)**

Further Reading

Associated Press, "Data Brokerages: LexisNexis Database Hit by ID Thieves." *Globe and Mail* (March 10, 2005): B13.

Biegelman, Martin T., *Identity Theft Handbook: Detection, Prevention, and Security.* Hoboken, NJ: Wiley, 2009.

Bloomberg News, "Web Firms Breach Data Privacy, EU Group Says." *Toronto Star* (May 27, 2010): B3.

Brenner, Susan W., "Is There Such a Thing as Virtual Crime?" *California Criminal Law Review* 4, no. 1 (2001): 105–111.

Credit Identity Theft.com, "Identity Theft of Celebrities and Wealthy." September 29, 2008. http://creditidentitysafe.com/articles/identity-theft-of-celebrities-and-wealthy.htm

"Facebook Seeks End to Privacy War." *Toronto Star* (May 27, 2010): B3.

Hoffman, Sandra K., *Identity Theft: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2010.

McAlearney, Shawna, "Privacy: How Much Regulation Is Too Much?" April 28, 2005. http://security.networksasia.net/content/privacy-how-much-regulation-too-much

McNish, J., and O. El Akkad, "Facebook Piracy Changes under Fire." *Globe and Mail* (May 27, 2010): B11.

Merrill, Scott, "Identity Theft Costs Rise Overall, While Costs per Victim Decline." February 10, 2010. http://www.crunchgear.com/2010/02/10/identity-theft-costs-rise-overall-while-costs-per-victim-decline

Public Safety Canada, "Phishing: A New Form of Identity Theft." 2009. http://www.publicsafety.gc.ca/prg/le/bs/phish-eng.aspx

Schell, B. H., *The Internet and Society.* Santa Barbara, CA: ABC-CLIO, 2007.

Schell, B. H., J. L. Dodge, and S. S. Moutsatsos, *The Hacking of America: Who's Doing It, Why, and How.* Westport, CT: Quorum Books, 2002.

Schell, B. H., and T. J. Holt, "A Profile of the Demographics, Psychological Predispositions, and Social/Behavioral Patterns of Computer Hacker Insiders and Outsiders." In *Online Consumer Protection: Theories of Human Relativism,* ed. K. Chen and A. Fadlalla. Hershey, PA: Information Science Reference, 2010.

Schell, B. H., and C. Martin, *Webster's New World Hacker Dictionary.* Indianapolis, IN: Wiley, 2006.

Weber, H. R., "Criminals Access ChoicePoint's Information Data." *Globe and Mail* (February 22, 2005): B15.

Zerbisias, A., "Facebook under Fire: Is Social Site Getting a Little Too Friendly?" *Toronto Star* (May 20, 2010): A4.

IMMIGRATION AND EMPLOYMENT LAW ENFORCEMENT

E. Andreas Tomaszewski

Although most people understand the contributions immigrants make to the U.S. culture and economy, a much-contended issue is that of illegal immigration and what to do about it. Associated with legal and illegal immigration are the issues of employment, as this is the preferred way for most people to make a living. The controversies come from the lack of consensus on what immigration policies should look like, and these revolve around questions such as: Who should be allowed to immigrate to the United States? How many people should be allowed to immigrate? How can people be prevented from entering the United States illegally, meaning without having obtained legal permission to enter? What should be done when illegal immigrants are found by law enforcement? Are immigrants not responsible for a large number of crimes? Do immigrants not take work away from Americans? Does immigration not increase the likelihood of terrorist attacks on U.S. soil by foreign extremists?

In the past few years, anywhere from close to three quarters of a million to around 1 million people enter the United States as legal immigrants annually (MPI Staff and

WHERE DO IMMIGRANTS LAND AND SETTLE?

Traditional so-called gateway states for past immigrants to the United States were California, New York, Texas, Florida, New Jersey, and Illinois.

More recently, newer immigrants have started to settle in states that had customarily seen relatively few of them: Georgia, North Carolina, Massachusetts, Washington, Ohio, South Dakota, Delaware, Missouri, Colorado, New Hampshire, Michigan, Montana, Connecticut, and Nevada.

Jernegan 2005). The numbers went down after the September 11, 2001, attacks, as the responsible terrorists had entered the United States legally, which led to significant changes to the immigration system. According to the U.S. Census Bureau's 2005 American Community Survey (which counts only households, not residents in institutions such as universities or prisons), 35.7 million of the close to 289 million people currently living in the United States are immigrants, which represents 12.4 percent of the population, up from 11.2 percent in 2000. Further, from 1990 to 2000, the total population showed a 57 percent increase in the foreign-born population, to 31.1 million from 19.8 million (Lyman 2006).

Background

Immigration has always played a very important part in the history of the United States, a country of immigrants. It owes its existence to people who came to the new world of their own free will (early European settlers and more recent immigration) and against their will (enslaved Africans), all of whom contributed greatly to making the United States what it is today (Zinn 2003). Europeans began settling the area north of the Rio Grande in North America in the 1500s, and the first black people landed in English America in 1619. The first U.S. census in 1790 showed close to 4 million people living in the colonies. The largest number of voluntary travelers by far came from England (2 million), followed by Scotland (163,000), Germany (140,000), and Holland (56,000). Almost 700,000 of the total population of the day were slaves from Africa.

Today, estimates of the numerical size of the group of illegal immigrants vary greatly, depending on who generates them. They range from 7 million to 20 million and almost any figure in between (Knickerbocker 2006). A consensus, of sorts, has formed around estimates between 11 and 12 million (Pew Hispanic Center 2010; Yen 2010). U.S. immigration officials have said that since 2003, the number of illegal immigrants has grown by as much as 500,000 a year, although in recent years the total has flattened out (Pew Hispanic Center 2010).

A growing problem has arisen from the large number of children born in the United States to parents with no legal status. This automatically makes the children U.S. citizens, whereas their parents remain illegal, which makes it very difficult to develop policies for

this group of immigrants (Knickerbocker 2006). Having understood a long time ago the importance of immigration and a system that controls it, the various U.S. administrations have developed and changed policies with the goals of reducing the number of illegal immigrants and regulating their impact on the domestic labor market. Assessments regarding the success of these policies vary greatly, and mid-2010 saw numerous attempts to significantly revamp immigration law.

Legal Developments

The persistent desire of foreigners to start a new life in the United States and the state's need to control exactly who is able to do so made the creation of immigration policy imperative. After a significant period of time without immigration policies, the Immigration Act of 1819, which set standards for vessels bringing immigrants (Martz, Croddy, and Hayes 2006), was the first piece of legislation dealing with this issue. Subsequently, immigration laws have been revamped virtually once a decade.

Following the American Civil War, several states passed immigration laws. The Supreme Court decided in 1875 that the regulation of immigration was a federal responsibility. After immigration increased drastically in 1880, a more general Immigration Act was introduced in 1882, which levied a head tax on immigrants and prevented certain people (e.g., convicts and the mentally ill) from entering the United States. State boards or commissions enforced immigration law with direction from U.S. Treasury Department officials (Smith 1998) before the Immigration Service was established in 1891 (Center for Immigration Studies n.d.). Finally, following a renewed surge in immigration after World War II, a quota system based on the national origin of immigrants was introduced in 1921 (Martz, Croddy, and Hayes 2006). This system was revised in 1924, and Congress created the U.S. Border Patrol as an agency within the Immigration Service in the same year. Under the modified system, immigration was limited by assigning each nationality a quota based on its representation in the previous U.S. census.

In 1951, a program that had allowed Mexican seasonal labor to work in U.S. agricultural businesses (the Bracero Program, started by California) was turned into a formal agreement between the United States and Mexico. Congress recodified and combined all previous immigration and naturalization law in 1952 into the Immigration and Nationality Act (INA). Along with other immigration laws, treaties, and conventions of the United States, the INA relates to the immigration, temporary admission, naturalization, and removal (deportation) of foreign nationals. The national origins system remained in place until 1965, when Congress replaced it with a preference system designed to unite immigrant families and attract skilled immigrants to the United States. This was in response to changes in the origins of immigrants that had taken place since the 1920s: the majority of immigrants were no longer from Europe but from Asia and Latin America.

It was also the first time that immigration and employment were linked, as efforts were made to offset the domestic shortage of people with certain skills by bringing in immigrants who met certain criteria. Although several acts at various times allowed refugees

to enter the United States and remain—for example, after World War II, people from communist countries were allowed in, as were other refugees from Europe—a general policy regulating the admission of refugees was put in place only with the Refugee Act of 1980. This act defines a refugee as a person leaving his or her own country because of a "well-founded fear of persecution on account of race, religion, nationality, membership in a particular group, or political opinion" (Martz, Croddy, and Hayes 2006).

A significant change to immigration policies was made in 1986, when the Immigration Reform and Control Act was passed; one of the provisions included in the act made it illegal for employers to knowingly hire illegal immigrants. Following this, many modifications to existing laws and introductions of new laws continued to focus on illegal immigration and the employment of undocumented immigrants, as did the reform debates of 2006–2007 and 2010. The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 authorized more border patrol agents along the 2,000-mile United States–Mexico border, created tougher penalties for smuggling people and creating forged documents, and initiated an expedited removal process for immigrants caught with improper documents.

Throughout history, considerations regarding race have always influenced immigration policies; legislation ranges from having some racist undertones to being blatantly racist (Zinn 2003; Vellos 1997). Examples that stand out include the following: the Chinese Exclusion Act of 1882; the Immigration Act of 1907, which limited the number of

TRENDS IN IMMIGRATION

Whereas people from European countries dominated early stages of immigration, this is no longer the case; for some time now, the majority of immigrants have come from Latin America, South America, and Asia.

The phrase "Mexicanization of U.S. immigration" refers to a more than decade-long trend of Mexicans coming to the United States legally and illegally.

Historically, the peak immigration decade was 1901 to 1910, when 8.8 million legal immigrants were admitted to the United States. The 1990s surpassed this, even without taking into account illegal immigrants.

Because immigrants who came to the United States in the mid-20th century (after World War II) are now dying off, the percentage of European-born immigrants has dropped by almost 30 percent since 2001.

Recent data show that foreign-born people and their children make up 60 percent of the population in the most populous city in the United States: New York. A similar trend can be seen in many of the suburban counties around the city: in 24 of them, 20 percent of the residents are now foreign-born.

The three countries of origin from which the majority of immigrants have come and continue to come are Mexico (totaling approximately 11.6 million in 2007), China (just over 2 million), and India (1.7 million).

Japanese immigrants; the National Origins (First Quota) Act of 1921, which favored immigration from northern European countries at the expense of southern and eastern European nations; and the National Origins (Second Quota) Act of 1924, which continued the discrimination against southern and eastern Europeans and imposed new restrictions on Asian immigration. Arguably, provisions in the 2001 Patriot Act discriminate against certain ethnic and religious groups (Middle Easterners and Muslims) because of their alleged connections with terrorist organizations.

Key Events and Issues

Within the last 100 years, three events that affected immigration and corresponding legislation in the United States stand out: World War I (1912–1918), World War II (1939–1945), and the terrorist attacks of September 11, 2001. This last event led the government under President George W. Bush to introduce the USA Patriot Act in the same year, which established the U.S. Department of Homeland Security and made the U.S. Department of Citizenship and Immigration Services (CIS) a bureau within it (CIS has an Office of Immigration Statistics, which collects data to discern immigration trends and inform policy formulation).

Further, Title 8 of the Code of Federal Regulations (CFR) was amended in 2002 and 2003. (The U.S. Code and the Code of Federal Regulations codify federal laws, including those that deal with immigration [Title 8 in both documents].) The Immigration and Naturalization Service (INS), which was in charge of immigration and enforcement of immigration law for so long as part of the U.S. Department of Justice, no longer exists. Aside from the creation of the CIS within the large bureaucratic structure of the Department of Homeland Security, some functions have been streamlined. For example, whereas the U.S. Department of Customs and Immigration and the INS used to be in charge of related tasks, U.S. Immigration and Customs Enforcement (ICE, also a part of Homeland Security) was carved out of the old Customs Department and now focuses exclusively on these issues, such as the arrest and removal of a foreign national who, in governmental language, is called an alien. The formal removal of an alien from the United States was called deportation before the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, and such a measure must be ordered by an immigration judge after it has been determined that immigration laws have been violated. The Department of Immigration and Customs Enforcement can execute a removal without any punishment being imposed or contemplated (U.S. Department of Citizenship and Immigrations Services).

Foreign nationals entering the United States generally fall into one of three categories: lawful permanent residents (LPRs), nonimmigrants, and undocumented migrants (illegal immigrants). Documents have to be issued by U.S. immigration authorities for individuals in the first category, also referred to as permanent resident aliens, resident alien permit holders, and green card holders. A noncitizen of the United States can fall

into this category upon arrival by either having obtained the document through the more common and often lengthy application process or by having won it in the "green card lottery," which makes a certain number of green cards available every year. These documents are also referred to as immigrant visas because the holder is allowed to reside and work in the United States without restrictions under legally recognized and lawfully recorded permanent residence as an immigrant. The Immigration Act of 1990 set the flexible numerical limit of individuals falling into this category at 675,000 annually. Exempt from these limits are several categories of people, including immediate relatives of U.S. citizens, refugees, and asylum seekers.

Nonimmigrants may or may not require permission (a visa) to enter, depending on their purpose for entering the country (work, business, study, travel) and nationality. In general, tourists and business travelers from most Western countries do not have to apply for a visa at a U.S. embassy or consulate general in their country of citizenship, although this is always subject to change (as was done after 9/11). Those who plan to stay in the United States temporarily to study or work must apply for authorization to do so prior to their arrival. It is not guaranteed that such an application, which often takes six months or more, will be approved or processed in time. For example, improved security measures, increased background checks of applicants, and prolonged processing times after 9/11 have significantly lengthened the process.

U.S. employers wanting to employ a foreign national on the basis of his or her job skills in a position for which qualified authorized workers are unavailable in the United States must obtain labor certification. This is one of many instances in which the U.S. Department of Labor is involved with matters pertaining to foreign nationals. Labor certification is issued by the secretary of labor and contains attestations by U.S. employers as to the number of U.S. workers available to undertake the employment sought by an applicant and the effect of the alien's employment on the wages and working conditions of U.S. workers similarly employed. Determination of labor availability in the United States is made at the time of a visa application and at the location where the applicant wishes to work.

There are literally dozens of nonimmigrant visa classifications, including the following, which are among the most common. Students who want to study at U.S. colleges and universities are issued F-1 visas; those participating in cultural exchange programs (including academics and researchers from abroad) get J visas, which generally cannot be renewed; temporary workers with specialized knowledge and skills (including academics and researchers from abroad) get H and other visas. For professionals from Canada or Mexico, there is the TN category under North American Free Trade Agreement (NAFTA) regulations.

Each year, Congress decides how many visas are to be issued in each category. Although holders of different types of H and other visas play an increasing role in the U.S. economy, significantly fewer have been authorized in recent years despite high demand

by U.S. employers. The annual cap is typically reached within the first few months of the fiscal year. For example, for fiscal year 2009, the cap of 65,000 (in fiscal years 2001 to 2003, it was 195,000) was reached in just 8 days. (In fiscal year 2005, the same cap was reached on the first day of the fiscal year.)

Further, it is standard practice that J visas are associated with a particular educational institution, just as TN and H visas are tied to a particular employer. If the student wants to change universities or the worker his or her employer, a new document must be issued. The length of time that these visas are valid varies, and an application for renewal must be filed with immigration authorities before they expire. Otherwise, the visa holder loses eligibility to do what the document had authorized could be done. Upon expiration of a visa, a new document must be applied for at a U.S. embassy or consulate general in the visa holder's country of citizenship. Upon expiration of the visa, the immigrant student or worker can no longer legally study or work in the United States and generally can remain in the United States no longer than six months.

People falling in the last category, that of undocumented migrants, are commonly referred to as illegal immigrants, which means that they entered the country without proper documents and without authorization and knowledge of U.S. immigration authorities. Enforcement of immigration and employment law focuses on this group. They cross the border at unsecured locations, such as forests and rivers, or between inspection points (official border crossings), or they pass inspection with forged documents or cross the border hidden in vehicles. The majority of illegal immigrants come from Mexico and other Latin, Central, and South American countries in hopes of finding work and a better economic future.

Although not discussed very often, a large number of undocumented migrants, especially from Mexico, are leaving the United States each year (counterflow). For example, INS data show that, in the 1990s, around half as many people who entered the United States unauthorized every year left it again (Martz, Croddy, and Hayes 2006). In fact, many unauthorized Mexicans do not want to immigrate permanently; they want to get a job, make some money (unemployment and poverty rates are very high in Mexico), and return home to their families. Smaller numbers of illegal immigrants cross the United States–Canada border or come by sea.

Many people who try to enter the United States without authorization (e.g., their applications were rejected because they did not meet certain criteria, they thought they would be rejected, or they never applied for whatever reason) risk their lives. For example, from 1998 through 2002, more than 1,500 illegal immigrants died trying to cross into the United States, mostly of exhaustion and exposure. Another risk in trying to cross the border alone is that of getting caught by the U.S. Border Patrol, whose job it is to stop illegal immigration. If that happens, they are generally not detained or charged but sent back across the border. To lower these risks, many pay a lot of money for the services of guides, called coyotes, organized in bands, which make millions of dollars

each year. The guides may accompany them to a location where the border is not secured properly or smuggle them across the border. Being smuggled in the back of a truck or in a container, however, is risky, too, as such immigrants have suffocated or died of heat exhaustion or lack of water.

Once on U.S. soil, undocumented migrants try to find work and accommodation and become the responsibility of Department of Immigration and Customs Enforcement, which tries to find them and, if successful, take them back across the border; undocumented migrants are generally not charged. With access to the right networks, finding a job can be relatively easy. Further, many employers prefer to hire illegals because it increases their profit margin. Although the employers can charge the same for their products or services, they can pay the migrants less. Industries that hire a large number of undocumented workers include service industries, natural resources, and construction (National Employment Law Project). The Immigration Reform and Control Act of 1986 included a provision for employer sanctions if employers hired, recruited, or referred for a fee aliens known to be unauthorized to work in the United States. Violators of the law are subject to a series of civil fines for violations or criminal penalties when there is a pattern or practice of violations (historically, the latter was inconsistently enforced).

Although the Department of Labor is in charge of enforcing labor-related laws and regulations, such as the Fair Labor Standards Act, which, among other things, provides minimum wage and overtime protections and thus also protects illegal workers, the enforcement of immigration laws is out of its jurisdiction. For better or worse, historically, cooperation between the agencies that enforce immigration laws, on the one hand, and employment laws, on the other, has been less than stellar. Despite the provisions of the 1986 law, employers of illegal immigrants were not at the center of enforcement activities for a long time, although increasing attention was paid to the issue in the 1990s.

For example, in 1999, a total of 417 civil fine notices were issued to employers. During the first years of the George W. Bush administration, less attention was paid to employers and only three civil fine notices were issued in 2003. In 2002, one year before Immigration and Customs Enforcement (ICE) was created within the Department of Homeland Security (DHS), 25 criminal charges were brought against employers. Following bipartisan pressure on the administration in spring 2006, DHS Secretary Michael Chertoff announced a campaign that promised to focus on employers suspected of hiring illegal workers and included more serious sanctions than previously, such as felony charges, huge financial penalties, and the seizure of assets. The more aggressive enforcement of immigration and employment laws by ICE led to 445 criminal arrests of employers within the first seven months of 2006 and to the deportation of the majority of 2,700 illegal immigrants who worked in these operations (Preston 2006).

Conclusion

With anti-immigrant sentiments on the rise between 2001 and 2010, the percentage of people polled who felt that immigrants are a burden because they take jobs and housing

away from citizens grew from 38 percent to 52 percent. Similarly, the percentage of those who felt that immigrants strengthened the United States with their hard work and talents dropped from 50 percent to 41 percent. Into the foreseeable future, at last three controversial debates will continue.

First, several commentators and officials—for example, in Texas, California, and Arizona—have suggested that there is an immigration crisis. Although responsible analyses show that this is not the case, the fact remains that a significant number of immigrants come to and live in the United States illegally. This creates several problems, including an increased likelihood for members in this group to be economically exploited (working for less than the minimum wage, not getting paid overtime or not getting paid at all, working in dangerous and labor law–violating environments, etc.), and being at higher risk for criminal victimization (particularly violence against women), as perpetrators of such crimes know that their victims are not likely to report their victimization to representatives of the state (National Employment Law Project).

The number of undocumented immigrants in the United States alone should be reason enough to undertake a comprehensive reform of U.S. immigration policies, regardless of whether the argument is the policies' lack of effectiveness or a humanitarian one that emphasizes the human, civil, and constitutional rights of unauthorized workers and immigrants in general. Two proposals for reform, one from the Senate and one from the House of Representatives, were discussed in 2006 but failed to pass. After the state of Arizona enacted, in 2010, a law giving police the authority to stop and question anyone suspected of being an illegal immigrant, leaders at the federal level, including President Barack Obama, are speaking of the need to renew the debate for comprehensive immigration reform.

In general, visa screening, border inspections, and the tracking of foreigners have been tightened as compared to the pre-9/11 years (MPI Staff and Jernegan 2005). For example, it requires non–U.S. citizens, including those residing in the United States temporarily (and legally), to provide border inspectors with digital fingerprints and a digital photo, which are taken by the inspector upon entry into the United States. Further, temporary legal residents have to obtain a bar-coded printout when leaving the United States, which they have to turn in when they return. Prior to this change, immigration authorities had no record of an alien who left the country.

Finally, another controversy ensues over the implementation of the National Security Entry-Exit Registration System (NSEERS), which requires all foreigners from countries with alleged ties to terrorist organizations to register with the government. In December 2002, this led to the detention without bond of thousands of immigrants from Iraq, Iran, and several other countries, although there was no evidence that these individuals had been involved in any terrorist or other criminal activity (Flowers 2003). Although the situation has improved somewhat in recent years, it is clear that many of the legislative changes are here to stay, and critics wonder if immigration restrictions associated with the so-called War on Terror are yet another and more subtle way to

discriminate against potential immigrants from particular backgrounds. Still, after a car bomb attempt in Times Square in May 2010 by a naturalized U.S. citizen from Pakistan, sentiments in favor of strict law enforcement were again on the rise.

Little disagreement exists that immigration policies should play an important part in efforts to keep the United States and its residents safe, as is the case with the associated need to know where foreigners are and what they do and to ensure that they engage in legal employment. The problem is, however, to find a way to achieve that which is agreeable to the majority, if not all.

See also **Border Fence; Human Smuggling and Trafficking; Patriot Act; Racial, National Origin, and Religion Profiling; Immigrant Workers (vol. 1); Immigration Reform (vol. 3)**

Further Reading

Brotherton, David C., and Philip Kretsedemas, eds., *Keeping Out the Other: A Critical Introduction to Immigration Enforcement Today.* New York: Columbia University Press, 2008.

Center for Immigration Studies, "History." n.d. http://cis.org/topics/history.html

Chomsky, Aviva, *They Take Our Jobs! and 20 Other Myths about Immigration.* Boston: Beacon Press, 2007.

Cieslik, Thomas, David Felsen, and Akis Kalaitizidis, eds., *Immigration: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2009.

Daniels, Roger, *Coming to America: A History of Immigration and Ethnicity in American Life,* 2d ed. New York: Harper Perennial, 2002.

Flowers, Christine, "The Difficulties Immigrants Face in the Post-9/11 World: How the War on Terrorism Has Changed Their Legal Status." *FindLaw's Writ: Legal News and Commentary* (May 1, 2003). http://writ.news.findlaw.com/commentary/20030501_flowers.html

Johnson, Kevin R., *Opening the Floodgates: Why America Needs to Rethink Its Borders and Immigration Laws.* New York: New York University Press, 2007.

Knickerbocker, Brad, "Illegal Immigrants in the U.S.: How Many Are There?" *Christian Science Monitor* (May 16, 2006). http://www.csmonitor.com/2006/0516/p01s02-ussc.html/

Lyman, Rick, "Census Shows Growth of Immigrants." *New York Times* (August 15, 2006). http://www.nytimes.com/2006/08/15/us/15census.html?ex=1313294400 and en=faeaaa9792c67f0c and ei=5088 and partner=rssnyt and emc=rss

Martin, Philip L., *Importing Poverty? Immigration and the Changing Face of Rural America.* New Haven, CT: Yale University Press, 2009.

Martz, Carlton, Marshall Croddy, and Bill Hayes, *Current Issues of Immigration, 2006.* Washington, DC: Constitutional Rights Foundation, 2006.

Mills, Nicolaus, *Arguing Immigration: The Debate over the Changing Face of America.* New York: Touchstone, 2007.

MPI Staff and Kevin Jernegan, "A New Century: Immigration and the U.S." *Migration Policy Institute* (Migration Information Source). 2005. http://www.migrationinformation.org/Profiles/display.cfm?ID=283

National Employment Law Project, "Immigrant Worker Project." n.d. http://www.nelp.org

Newton, Lina, *Illegal, Alien, or Immigrant: The Politics of Immigration Reform.* New York: New York University Press, 2008.

Pew Hispanic Center, "U.S. Unauthorized Immigration Flows Are Down Sharply since Mid-Decade." September 1, 2010. http://pewhispanic.org/files/reports/126.pdf

Preston, Julia, "U.S. Puts Onus on Employers of Immigrants." *New York Times* (July 31, 2006): sec A1.

Smith, Marian, "Overview of INS History." *U.S. Citizenship and Immigration Services Online.* 1998. http://www.uscis.gov/portal/site/uscis/menuitem.5af9bb95919f35e66f614176543f6d1a/?vgnextoid=b7294b0738f70110VgnVCM1000000ecd190aRCRD and vgnextchannel=bc9cc9b1b49ea110VgnVCM1000004718190aRCRD

Swain, Carol M., ed., *Debating Immigration.* New York: Cambridge University Press, 2007.

Takaki, Ronald, *A Different Mirror: A History of Multicultural America,* rev. ed. Boston: Back Bay Books, 2008.

U.S. Department of Citizenship and Immigration Services, Home Page. http://www.uscis.gov

Vellos, Diana, "Immigrant Latina Domestic Workers and Sexual Harassment." *American University Journal of Gender and the Law* 407 (1997): 407–432.

Yen, Hope, "Number of Illegal Immigrants in U.S. Declining." MSNBC. September 1, 2010. http://www.msnbc.msn.com/id/38961638/ns/us_news-immigration_a_nation_divided

Zinn, Howard, *A People's History of the United States: 1492–Present.* New York: HarperCollins, 2003.

INSANITY DEFENSE

Catherine D. Marcum

The issue of mental health and insanity has been a controversial one in the court system since the early 13th century. At the time, defendants claiming mental health issues during the commission of a crime were able to pursue different types of judicial outcomes rather than being classified as simply guilty or not guilty. However, the progression of the insanity defense has changed, especially over the past 100 years, which has changed the understanding of its tenets for both the defendant and the general public.

Background

One of the earliest recorded tests for insanity was the "wild beast" test. Created in the 13th century by an English judge in King Edward's court, the defendant was deemed insane by demonstrating that his or her mental capacity was not greater than that of a wild beast (Lunde 1975). In the early 18th century, the defendant was deemed insane if he or she could no more control his or her actions than a wild beast (*Washington v. United States* 1967); in other words, the defendant claiming insanity was unable to maintain any sort of self-control and therefore was unable to refrain from committing the crime with which he or she was charged.

The first insanity case involving "not guilty by reason of insanity" as a separate verdict of acquittal was the *Hadfield* decision. In 1800, James Hadfield attempted to murder King George III with a firearm. He claimed that God had called upon him to undergo self-sacrifice in order to carry out the act. His defense counsel argued that he was delusional and murder of the king was not an intention of Hadfield in his right mind. The jury's verdict of not guilty by reason of insanity was groundbreaking in initiating a new era of criminal defense (Caesar 1982; Gall 1982; Robin 1997).

Legal Developments

Although the *Hadfield* decision was an important pioneering step, it was not until almost 50 years later that the landmark McNaghten case drastically changed the insanity defense. In 1843, Daniel McNaghten planned to assassinate England's Prime Minister Robert Peel but accidentally murdered his secretary instead. During the trial, McNaghten's attorneys presented psychiatric testimony stating he was under the form of mental delusions that caused him to attempt the murder of Peel. The jury determined that McNaghten had no soundness of mind at the time of the offense and was found not guilty by reason of insanity. He was committed to Bedlam, where he remained until his death (Biggs 1955). The *McNaghten* decision was not taken well by the residents of England, especially Queen Victoria, who demanded a legislative review of the case. The House of Lords called a judges' review of the law's standards of the insanity defense. From this meeting, the *McNaghten rule* (*Rex v. McNaghten* 1843), or "right-wrong" test of insanity, was formed, which based a decision of insanity on the perception of the defendant's knowledge of right and wrong. The test was instituted in not only England but also the United States.

The main criticism of the *McNaghten* rule was that it considered only impairments of personality and not mentally ill offenders' inability to emotionally restrain themselves but still have the recognition that an act is wrong. This "irresistible impulse test," whose origins date back to 1840, was recognized as a separate basis of a determination of insanity. In 1929, the court of appeals in the District of Columbia held in *Smith v. United*

JUSTICE TINDEL'S ARTICULATION OF THE *MCNAGHTEN* RULE

"To establish a defense on the ground of insanity, it must be proved that, at the time of the committing of the act, the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or if he did know it, that he did not know that he was doing what was wrong. The mode of putting the latter part of the question to the jury on these occasions has generally been whether the accused at the time of doing the act knew the difference between right and wrong."

States that an accused must be able not only to prove the inability to determine right and wrong but also to demonstrate the failure to control impulse (Robin 1997).

In 1954, the Court of Appeals for the District of Columbia found that the *McNaghten* rule, used by all federal courts and many states as a test of insanity for approximately 100 years, was outdated. A modernized version of the rule was implemented with the *Durham* rule, as the *McNaghten* rule was found to disregard advances in medical science (*Durham v. United States* 1945). Monte Durham was convicted of housebreaking in a bench trial; his only defense was that he was of unsound mind. Judge David Bazelon created the *Durham* rule, which stated that a defendant was not responsible for a crime if the act was a result of a mental disease. The purpose of the new rule was to enable communication between psychiatric experts and the court to ensure proper evaluation of potential insanity (Robin 1997).

The *Durham* rule was used as the court standard of insanity for approximately two decades. However, an updated definition of insanity was adopted from the American Law Institute (ALI) as a result of *United States v. Brawner* (1972): "A person is not responsible if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity to appreciate the wrongfulness of his conduct or to confirm his conduct to the requirements of law" (pp. 66–67). The purpose of the ALI-*Brawner* test, or substantial capacity test, was to cease the reliance on psychiatric testimony and allow the jury to determine insanity. It is also noted in the substantial capacity test that mental disease does not include irregularities caused by recidivist behavior and antisocial behavior.

Shortly after implementation of the ALI-*Brawner* test, John Hinckley attempted to assassinate President Ronald Reagan on March 30, 1981. At trial, his psychiatrist testified that Hinckley suffered from schizophrenia and was unable to comprehend the magnitude of his act, even though he knew it was illegal. Based on the instruction of the law, the jury found Hinckley not guilty by reason of insanity and a national fury arose ("Insane on All Counts" 1982). The congressional response was the Insanity Defense Reform Act of 1984.

Prior to the passage of the Insanity Defense Reform Act, the majority of federal jurisdictions did not differentiate between the verdict of "not guilty by reason of insanity" and "not guilty"; in other words, a person judged not guilty by reason of insanity was treated the same by law as a person acquitted of a crime (Liu 1993). These jurisdictions did not require courts to inform the jury of the legal consequences of a not guilty by reason of insanity verdict because they felt as if the jury had no role in sentencing. The general rationale was that instruction of the repercussions of such a verdict would divert the jury from their roles as fact finders and compromise verdicts (*Pope v. United States* 1962). Defendants who were given the verdict not guilty by reason of insanity actually benefited in their defense because their burden of proof was different than that other cases. Generally, in federal and state courts, the burden of proof only had to meet a reasonable doubt regarding sanity.

After the Hinckley decision and the argued discrepancies of the insanity defense, Congress passed the Insanity Defense Reform Act of 1984, which made several changes to the federal law. First, the act allowed defendants to offer evidence that, at the time they committed a crime, demonstrated they were unable to appreciate the wrongfulness of their crime. Second, the responsibility of the burden of proof was switched from the prosecutor to the defense, which had to prove insanity with clear and convincing evidence. Next, the verdict not guilty by reason of insanity became a separate verdict along with guilty and not guilty. Finally and most important, the act addressed a serious loophole in federal law that allowed a defendant to escape commitment after being judged not guilty by reason of insanity (Ellias 1995).

Controversies of the Insanity Defense

The utilization of the insanity defense is not as cut and dried as is stated in the Insanity Defense Reform Act and has caused much controversy with the public. For instance, one might assume that the commitment of a person to a mental institution based on a verdict of not guilty by reason of insanity equates to commitment for life. However, this is not necessarily the case. In *Foucha v. Louisiana* (1992), the U.S. Supreme Court ruled that a person could not be held indefinitely through commitment with the verdict of not guilty by reason of insanity; therefore, once deemed not a threat to society and "cured," a person could be released back into society. This may be seen as unfair compared with the probable life sentence received by many other persons convicted of the same type of crime.

A second controversy is the fact that not all states afford the right to the insanity defense. States such as Montana, Idaho, and Utah have banned the use of the insanity defense. In 2006, the U.S. Supreme Court upheld in *Clark v. Arizona* (2006) that states have the right to deviate from or even totally abolish the use of the defense tactic.

Conclusion

After implementation of the Insanity Defense Reform Act, empirical studies found that the majority of jurors were aware that the verdict not guilty by reason of insanity

ANDREA YATES

One of the best-known cases of the insanity plea was that of Andrea Yates. In March 2002, Yates was convicted of drowning three of her five children and sentenced to life in prison. However, in July 2006, her conviction was reversed and she was found not guilty by reason of insanity and committed to a state mental hospital in Texas. Because of the Insanity Defense Reform Act of 1984, Yates did not avoid commitment despite her verdict of not guilty by reason of insanity.

equated to the involuntary commitment to a mental hospital for the defendant (Ellias 1995). Although early use of the claim of insanity caused media buzz of the assumed overuse of the defense, public perception has settled into the realization of the small frequency of its actual use as well as the necessity of the defense. Although the potential for abuse of the insanity defense is there, as well as the constant controversy over its use, many would argue that there is benefit there for the often mistreated mentally ill offender. Rather than treating such a person like a "wild beast," there are other options that will offer them the best treatment possible.

See also **Death Penalty; Expert Witness Testimony; Mental Health (vol. 3)**

Legal Citations

Clark v. Arizona, Docket No. 05–5966 (2006).

Durham v. United States, 214 F.2d 862 (1954).

Foucha v. Louisiana, 504 U.S. 71 (1992).

Pope v. United States, 298 F.2d 507 (5th Cir. 1962).

Rex v. McNaghten, Clark and Finnelly, 200, 8 *Eng.* Rep 718, House of Lords (1843).

Washington v. United States, 390 F.2d 444 (1967).

Further Reading

American Law Institute (ALI), *Model Penal Code.* Philadelphia: Author, 1962.

Biggs, John, *The Guilty Mind.* New York: Harcourt, Brace, 1955.

Caesar, B., "The Insanity Defense: The New Loophole." *Prosecutor* 16 (1982): 19–26.

Ellias, R., "Should Courts Instruct Juries As to the Consequences to a Defendant of a 'Not Guilty by Reason of Insanity' Verdict?" *Journal of Criminal Law and Criminology* 85, no. 4 (1995): 1062.

Erickson, Patricia E., *Crime, Punishment, and Mental Illness: Law and the Behavioral Sciences in Conflict.* New Brunswick, NJ: Rutgers University Press, 2008.

Ewing, Charles Patrick, *Insanity: Murder, Madness, and the Law.* New York: Oxford University Press, 2008.

Flew, Anthony, *Crime, Punishment, and Disease.* New Brunswick, NJ: Transaction Publishers, 2002.

Gall, C. A., "The Insanity of the Insanity Defense." *Prosecutor* 16 (1982): 6–13.

"Insane on All Counts: Is the System Guilty?" *Time* (July 5, 1982): 26–27.

Liu, Joseph P., "Note, Federal Jury Instructions and the Consequences of a Successful Insanity Defense" *Columbia Law Review* 93 (1993): 1223, 1229.

Lunde, D. T., *Murder and Madness.* New York: Norton, 1975.

Robin, G., "The Evolution of the Insanity Defense: Welcome to the Twilight Zone of Mental Illness, Psychiatry, and the Law." *Journal of Contemporary Criminal Justice* 13, no. 3 (1997): 224–235.

Shaw, Matthew F., *After the Insanity Defense: When the Acquitted Return to the Community.* New York: LFB Scholarly Publishing, 2007.

Simon, Rita J., and Heather Ahn-Redding, *The Insanity Defense, the World Over.* Lanham, MD: Lexington Books, 2006.

Szasz, Thomas, *Law, Liberty, and Psychiatry: An Inquiry into the Social Uses of Mental Health Practices.* Syracuse, NY: Syracuse University Press, 1989.

Torrey, E. Fuller, *The Insanity Defense: How America's Failure to Treat the Seriously Mental Ill Endangers Its Citizens.* New York: Norton, 2008.

Worth, Richard, *The Insanity Defense.* New York: Chelsea House, 2001.

J

JUVENILE JUSTICE

Christopher Bickel

The history of juvenile justice in the United States contains contradictory and competing ideas about juvenile delinquency and its solutions. Hence, juvenile justice policies have shifted along a continuum of incarceration at the one end and rehabilitation at the other. During times of moral panic over youth delinquency—which are often laced with racial fear and anxiety—the United States has shifted to an incarceration model that relies heavily on punitive policies of discipline. At other times, juvenile justice polices have embodied a model of rehabilitation that stresses support services and counseling for juveniles. Recently, one of the more controversial issues revolving around juvenile is whether juveniles who commit so-called adult crimes should be regarded as adults and subject to the same kinds of punishment or should be cared for as youths in need of treatment and understanding.

Background

The first institution in the United States to address juvenile delinquency was the House of Refuge in New York City. Established in 1825, this institution held not only children convicted of crimes but also those whose only crime was living in poverty. Soon after the opening of the first House of Refuge, reformers opened similar houses in Boston and Philadelphia. The public justification for the Houses of Refuge was explicitly religious. Wealthy reformers believed that impoverished children lacked the proper Christian values and morals, including a strong work ethic and respect for authority. As a result,

reformers designed the Houses of Refuge to reform youth through disciplined activity, prayer, work, and a heavily regimented day. On the one hand, the Houses of Refuge provided an alternative to the harsh conditions of adult jails and prisons, where children were frequently held. On the other hand, house residents were subjected to harsh training where corporal punishment and punitive working conditions were common.

Underneath the religious rhetoric of the conservative reformers was an intense fear of the poor, who, if organized, posed a threat to their class privilege. This gave rise to a widespread moral panic about rising juvenile delinquency among poor and working-class youth. At the time, massive economic disparity between the rich and poor profoundly shaped the social landscape. The industrial elite heavily exploited the labor of working-class and immigrant populations in the factories. Riots over working conditions were commonplace. The wealthy elite grew ever more weary and saw the Houses of Refuge as providing necessary reforms to control working-class youth (Krisberg 2005).

Since the construction of first House of Refuge, there has been contentious debate about how best to confront juvenile delinquency. Although the early reformers argued for institutionalization, others questioned the utility of institutions for children. In the 1850s, organizations like the Children's Aid Society argued that the Houses of Refuge were likely to expose children to criminal behavior and lead to more crime. The Children's Aid Society was part of a broader movement called the Child Savers, which argued that the Christian family was the ideal place to combat juvenile delinquency and socialize children. Child Saver organizations established programs to relocate children from the city to families in the west. These families, in theory, would raise the children with so-called proper Christian morals and values and offer better living conditions for the impoverished. In practice, however, the children's new families often treated them as delinquent stepchildren and exploited their labor for profit (Krisberg 2005).

Although the Child Savers argued against institutionalization for white immigrants, they raised few questions about the institutionalization of Native American children in boarding schools and African American children on plantations. In fact, many Child Savers urged the government to provide more funding for the construction of boarding schools for Native American children. Given prevailing stereotypes, Child Savers argued that the Native American family was immoral, backward, and unfit to raise children. Boarding schools, they believed, were the proper place to socialize Native American children. The boarding schools forbade children to use their first language, severed family ties, and attempted to replace Native American culture with Protestant values and morals. Boarding school staff forced children to cut their hair upon arrival and adopt European American ways of dress and demeanor. In their attempts to reform Native American children, boarding schools often relied on violent forms of discipline, not unlike those found in the early Houses of Refuge (Finkelstein 2000).

Despite resistance to institutionalization, juvenile reform schools continued to grow in the cities, especially in the Northeast. Throughout the late 1800s, the state increasingly

participated in the construction and management of reform schools. In 1899, Illinois established the first juvenile court charged with hearing all cases involving juveniles. The court was founded on the idea of *parens patriae,* which asserts that children are developmentally unlike adults. Given this, the state has a vested interest in protecting the welfare of children, who cannot protect themselves. Before 1899, the legal system made no formal distinction between adults and children (Austin and Irwin 2001). After the formation of the Illinois juvenile courts, other states soon followed. Juvenile courts sought to control juvenile delinquency through rehabilitation rather than punishment. The courts had the power to remove children from their homes and sentence them to training schools. Although rehabilitation was the goal, the training schools continued to feel like places of punishment to those confined.

Throughout the early 1900s, reformers continued to experiment with different strategies to control juvenile delinquency. With the rise of the social sciences, researchers explored the causes of delinquency and began to offer social policies based on systematic research. Early criminologists, like Cesare Lombroso, argued that criminality was genetic and traceable by studying the structure and shape of the human body. Biological explanations posited that if people were born criminal, attempts to rehabilitate them would inevitably fail. Other researchers, like William Healy, questioned the more biological explanations and instead argued that juvenile delinquency was a symptom of a child's surroundings—their peers, family, and so on—which all affected their mental health.

The more environmental explanations for juvenile delinquency gathered strength with the creation of the Chicago School of Sociology. Sociologist Clifford Shaw systematically studied juvenile delinquency in Chicago during the 1930s. He argued that delinquency was the product of social disorganization in neighborhoods, which experienced a breakdown of more conventional institutions like the family and church. Informed by theories of social disorganization, the Chicago School helped to develop more preventative strategies to combat juvenile delinquency. Social workers were sent out into the community to organize residents and create community institutions that would prevent juvenile delinquency. For Shaw, reform schools were of limited value because they did not address the social causes of delinquency, specifically the structural breakdown of communities. The key to solving problems of juvenile delinquency was to strengthen community ties and institutions. Despite Shaw's call for more preventative measures, juvenile institutions continued to grow throughout the 1940s and 1950s.

The Modern Period: From Deinstitutionalization to Getting Tough

The 1960s gave birth to a new wave of thinking about juvenile delinquency, which challenged the continued institutionalization of juveniles. With the rise of the Black Power movement, Chicano Movement, and American Indian Movement, community residents began to argue for more control over the institutions that confined their children.

Many questioned the need for more juvenile institutions, which activists argued were not about rehabilitation or reform but rather about controlling and patrolling communities of color. The social uprisings of the 1960s provided the backdrop to the formation of more community-based solutions. Instead of removing children from the community to large-scale institutions, activists argued for more preventative programs, group homes, and transition homes.

Activist calls for deinstitutionalization came to fruition in 1972 when Jerome Miller, director of the Massachusetts Department of Youth Services, closed down all juvenile reform schools and transferred the children to smaller residential programs, where they received personalized counseling from trained professionals rather than punishment from prison guards. These new community-based programs were far more successful in reducing recidivism rates that the youth prisons that existed prior to 1972. Following in Miller's footsteps, President Richard Nixon established the 1973 National Advisory Commission on Criminal Justice Standards and Goals. The commission recommended that all large-scale juvenile justice institutions be closed and replaced by more community-based programs (Mauer 1999). Juvenile prisons, the commission argued, were more likely to increase crime than to prevent it, because children rarely received the necessary rehabilitation in prison-like facilities. In institutions, children learned more about crime and developed a distaste for people in positions of authority, all of which increased the chances that they would reoffend. Nixon, however, disregarded the report, paving the way for increased use of juvenile prisons. Although various states continued to experiment with deinstitutionalization for juveniles, these efforts all but disappeared during the 1980s and 1990s, with the rise of the "get tough on crime" movement.

Although juvenile crime rates during the 1970s and early 1980s remained fairly constant, there was a substantial increase in juvenile crime from 1987 to 1994, especially crimes involving firearms. For example, teenage homicide rates doubled between 1985 and 1994 (National Criminal Justice Commision 1996). Conservative criminologists, academics, commentators, and politicians seized the opportunity to push a "get tough on crime" agenda that argued for less rehabilitation and more punishment. John DiIulio, a political scientist at Princeton, became an academic poster child for this movement when he coined the racially charged word *superpredator.* DiIulio, and a cohort of other conservative academics, used that word to describe a new kind of juvenile offender who was sociopathic, remorseless, and very dangerous. DiIulio's argument, fraught with racial stereotypes, maintained that the new youthful offender lacked a moral conscience and values.

This framing of youth crime is reminiscent of how the early reformers framed white immigrant youth during the creation of the Houses of Refuge. DiIulio warned that, by the year 2010, nearly 270,000 superpredators would be roaming the streets, resulting in an unprecedented crime wave. This stoked the already burning flames of racial and class anxiety and thus served to justify new laws and penalties for juvenile offenders.

Rehabilitation, conservatives argued, would not work with this new type of juvenile offender. The media ran with the story. Every school shooting, juvenile homicide, and violent crime became a testament to the rise of the superpredator, which became a racially imbued code word for children of color in the inner city. By 1994, nearly 40 percent of all print news that covered children was about crime and violence, mostly involving children of color (Hancock 2000).

Time, however, did not lend much support to DiIulio's thesis of the superpredator. Crime rates began to drop after 1994, and the crime wave he had predicted never hit. In fact, juvenile crime rates have continued to drop. Moreover, DiIulio's description of a new kind of juvenile delinquent failed to match the data on incarcerated children. Of the 106,000 children in secure facilities in 1997, the overwhelming majority were incarcerated for nonviolent offenses. Thirty-six percent of juveniles were incarcerated for crimes against persons. Only 2 percent of incarcerated children had committed homicide, and 6 percent committed sexual assault. The majority of incarcerated children, or 73 percent, had committed nonviolent offenses. Property offenses, like auto theft and shoplifting, accounted for 32 percent. Drug offenses accounted for 9 percent, mostly for drug possession. Public order violations, like being drunk in public, accounted for 10 percent. Technical violations of patrol accounted for 13 percent (Office of Juvenile Justice and Delinquency Prevention 1999).

This portrait of incarcerated children is a far cry from the myth of the violent superpredator. Nonetheless, politicians continued to sound the alarm. By capitalizing on the public's racial anxiety and fear of crime, politicians seized their newly found political capital to win elections. This paved the way to making the juvenile justice system of the United States one of the most punitive in the world and one of the largest incarcerators of children.

Moreover, the 1980s and 1990s saw the passing of several punitive laws designed to target youth crime at the federal, state, and local levels. At the federal level, the Violent and Repeat Juvenile Offender Act of 1997 encouraged more prosecution of juvenile offenders, increased penalties for gang-related offenses, and increased the use of mandatory minimums for juvenile offenders. At the state level, an increasing number of states passed laws to lower the age at which juveniles could be tried as adults. Some states allowed children as young as 14 years of age to be tried in adult criminal courts. In 2000, California, for example, passed Proposition 21, the Juvenile Crime Initiative, which increased the penalties for gang-related felonies; mandated indeterminate life sentences for carjacking, drive-by shootings, and home invasion robbery; made gang recruitment a felony; and required adult trials for children as young as 14 charged with serious sex offenses and murder. Proposition 21 passed with 62 percent of the vote, even though crime rates among juveniles had decreased during the previous six years.

At the local level, city prosecutors sought restraining orders against specific gangs in the community. These orders are known as gang injunctions and prohibit actions like

walking down the street in groups of four or more, wearing certain kinds of clothes, and associating with other gang members. These activities are not crimes in any other neighborhoods except those where injunctions apply. Those who violate these rules can be held for violating a court order, resulting in up to six months in jail for participating in illegal activities. Moreover, those convicted of gang-related felonies face additional penalties aside from the actual crime for being in contempt of court for violating the restraining orders.

Los Angeles, for example, has nearly 30 gang injunctions that target more than 35 different gangs, nearly all of them comprising people of color. Although police departments praise gang injunctions as a vital tool in their war on gangs, the use of gang injunctions has raised questions among civil rights advocates because they overwhelmingly target people of color. The use of gang injunctions is quite similar to the way in which white southerners used the Black Codes to criminalize and incarcerate large numbers of recently freed African Americans after the abolition of slavery. Black Codes included laws against loitering, socializing in large groups, and vagrancy that applied only to African Americans, much as restraining orders apply only to specific communities (Bennett 1993).

A massive increase in the number of children of color in the juvenile justice system has accompanied these new federal, state, and local "get tough" policies. Although African Americans represent roughly 13 percent of the population, they make up nearly 40 percent of all incarcerated children. Latinos represent 13 percent of the general population but 21 percent of incarcerated children in public institutions. Native Americans also have a high rate of incarceration, but because of their relatively low numbers in the general population, they represent only 1 percent of the incarcerated population. Asians and Pacific Islanders account for 2 percent of the incarcerated population. These low numbers, however, mask the high incarceration rates of Cambodian, Laotian, Hmong, and Samoan children (Office of Juvenile Justice and Delinquency Prevision 1999).

These statistics reflect widespread institutional racism within the juvenile justice system. According to the 2007 report *And Justice for Some,* by the National Council on Crime and Delinquency, Latino and African American youth are far more likely to be incarcerated in state institutions, even when controlling for the type of offense and prior records. Latino youth are three times more likely to be incarcerated than their white counterparts and spend 112 days longer in secure settings than their white counterparts. African American children are six times more likely to be incarcerated and spend, on average, 61 more days confined than their white counterparts (National Council on Crime and Delinquency 2007). Moreover, although white children are more likely to use drugs, children of color are three times more likely to be incarcerated for drug crimes (Krisberg 2005).

WHITE AND BLACK JUSTICE

Sara Steen, a professor at Vanderbilt University, and George Bridges, a professor at the University of Washington, provide insight into how race structures the process of juvenile justice. Bridges and Steen systematically studied the written reports submitted by probation officers to the juvenile court system. These reports, based on interviews with accused children, contain the children's life histories and the probation officers' sentencing recommendations. After looking at hundreds of reports, Bridges and Steen found that, when they were explaining the crimes of black children, probation officers pointed to negative attitudes and personality traits, such as a lack of respect for the law and authority. For white children, however, probation officers highlighted more environmental factors, like family and drug abuse. As a result, Steen and Bridges found that probation officers recommended longer sentences for black children because they were perceived to be dangerous and a threat to society.* Racial stereotypes, they argued, heavily shape the processing of children of color throughout the juvenile justice system.

*George Bridges and Sara Steen, "Racial Disparities in Official Assessments of Juvenile Offenders: Attributional Stereotypes as Mediating Mechanisms of Juvenile Offenders." *American Sociological Review* 63 (August 1998): 554–570.

Conditions of Confinement: Incarceration versus Rehabilitation

Children awaiting trial are often confined to juvenile detention centers located in their communities. Once children are sentenced, they are usually transferred to state institutions located in rural communities far away from their homes. Secure institutions for juveniles, whether detention centers or youth prisons, vary greatly depending on the state. Most states base their juvenile justice policies on the incarceration model and confine youth to large, prison-like institutions equipped with cells, steel doors, and heavy locks. Services and rehabilitation programs are scarce, because the goal of rehabilitation has been replaced with that of punishment. Other states, however, organize juvenile justice around policies of rehabilitation and run smaller, community-based institutions that offer substantial counseling and rehabilitation programming.

Under the incarceration model, juvenile detention centers and youth prisons treat their captives as human objects to be worked upon, shaped, and molded to meet institutional demands. Much like the early Houses of Refuge, juvenile detention centers and prisons strictly enforce obedience, passivity, and deference to people in positions of authority. In juvenile detention centers and youth prisons, children are subjected to a series of rules and punishments that, in theory, are supposed to help reform their behavior.

Behavior management programs are often used to achieve these ends. Such programs outline all institutionally acceptable and unacceptable behaviors and impose an artificial hierarchy on the youth, marking those with and those without certain privileges. If a

child follows all the rules and obeys the instructions of the guards, they are rewarded with extra time out of their cells, later bedtimes, and more access to the phone.

If children break these institutional rules or defy the orders of the guards, they may be punished with cell confinement, which in theory should last anywhere from eight hours to three days but in reality may last for several months.

If a child, for example, has a pencil in his or her cell, or if he or she possesses more than five books, the child may be locked in the cell for 16 hours. If a child tucks his or her pants into socks or is found with sagging counting blues (baggy blue jeans), he or she may be locked in the cells for two days. If a child floods the cell, he or she may be locked in the cell for a minimum of three days, with additional punishment depending on behavior while confined (Bickel 2004).

Grounded in simple operant conditioning, the underlying assumption of this system, known as the level system, is that if compliance is rewarded and noncompliance punished, the youth, like mice in a Skinner box, will eventually learn to adhere to the rules of the institution and, by extension, those of society. Although the level system is the primary tool of social control inside the secured walls, it is justified on the grounds that if children can be trained to follow rules inside the detention facility, these newly instilled values will follow them once they leave it.

Depending on the institution, children may spend their time housed in large barracks-style housing units or in cells similar to those used to house adults in prisons: seven- by eight-foot cinderblock rooms each containing a bed, a stainless steel sink and toilet, and a steel door with a narrow window. On average, children spend nearly 14 hours a day inside their cells. When they are confined to cells for long periods of time, children often feel angry, frustrated, and bored, leading many to conclude that they are merely being warehoused (Bickel 2004). The stringent rules and punishments exacerbate these feelings among detained and incarcerated youth and set the stage for intense conflict between the confined and the confiners, or guards, who must enforce the rules and impose punishments.

Guards and the Incarceration Model

Guards work in juvenile facilities for a variety of reasons. Some want to work with children and counsel them. Others, however, work in juvenile institutions because such jobs provide a stable and secure source of income. Guards come from all walks of life. Some are college graduates, others are retired from the military, and others are high school graduates. Increasingly, states require that guards have at least a college education or military experience. Few guards, however, have significant training dealing with incarcerated children, especially those in large, prison-like institutions that operate under the incarceration model.

The training that guards receive varies from state to state but usually consists of a stint in a training academy and a probationary period of on-the-job training. In

Washington, for example, new recruits must attend a two-week training academy course at some time during their six-month probationary period of employment. At the academy, guards learn how to observe the children, use disciplinary techniques, and use physical force. During this training, guards learn to always be on the alert in dealing with detained and incarcerated children. Implicit and sometime explicit in their training is the assumption that the children are, at best, troubled and, at worst, downright dangerous. The *Washington State Juvenile Workers Handbook,* for example, warns new recruits that "the first step in preparing to deal with offenders is to understand the sociopathic personality" (Criminal Justice Training Commission n.d.) The handbook, then, lists characteristics of the so-called sociopathic personality, reminiscent of DiIulio's myth of the superpredator: irresponsible, self-centered, feels little or no guilt, sees staff as objects for exploitation, compulsive liar, strong drive for immediate gratification, and adept at manipulation. "You must recognize that a majority of the offender population will be sociopathic to some degree," the handbook warns (Criminal Justice Training Commission n.d.).

Although guards are taught to be deeply suspicious of the children, they are offered little education on how larger social forces shape the children's response to the justice system. Guards, for example, are not taught about the effects of poverty or racism on the lives of detained children, nor is there any discussion of how racial and class biases affect how guards interact with and perceive their charges. In short, guards leave the academy ill prepared to deal with incarcerated children in any way except as potential threats. They are taught little that might help them bridge the gap between the two warring worlds found in most juvenile detention centers and youth prisons.

Rather than teaching understanding and building bridges between the guards and children, the academy trains guards to distrust incarcerated youth at every turn, thus exacerbating the conflict between the two sides (Bickel 2004).

The Incarceration Model and Abuse

On April 1, 2003, cameras caught two juvenile prison guards physically assaulting two children in a Stockton, California, youth facility. One guard punched a child in his head and face more than 28 times while the child was in a fetal position, arms protecting his head. Aside from the repeated closed-fist punches, guards dropped their knees with heavy force several times on the back of the child's head and neck. Although the incident was caught on tape, the county district attorney dropped all charges against the guards.

This incident, coupled with increasing public scrutiny of the California Youth Authority (CYA), led to an intensive review of juvenile prisons in the state. The CYA is one of the largest justice systems in the United States, housing more than 4,300 youth, 84 percent of whom are children of color. The CYA relies heavily on the incarceration model to structure institutional policies and practices. Barry Krisberg, director of the

National Council on Crime and Delinquency, released his report of the CYA in December 2003. Krisberg found extensive abuse in the six CYA institutions he investigated.

During the first four months of 2003, one state institution documented more than 535 incidents of the use of chemical restraints, such as mace and pepper spray. Mace and pepper spray are used throughout juvenile facilities in the United States and are usually used to break up large disturbances. The 2003 review of the CYA, however, found that chemical restraints were frequently used to remove children from their cells, even when there was no clear reason to do so. Guards refused to allow many children to wash off the chemicals, leaving severe chemical burns on their skin. During the same four-month period, there were 109 incidents involving physical restraints and 236 incidents involving mechanical restraints. Mechanical restrains involve forcing children to rest on their knees for long periods of time with their hands bound behind their backs (Krisberg 2003).

Aside from the use of chemical, physical, and mechanical restraints, Krisberg also found that 10 percent to 12 percent of the youths were housed in restrictive facilities where they spent 23 hours a day in their cells, with one hour out for recreation. Often, during that one hour of recreation, children were chained in five-point restraints, with ankles locked together and wrists locked to the waist, making it difficult to exercise. Other children were released to small cages called Special Program Areas.

In addition to abuse at the hands of guards, Krisberg also found significant ward-on-ward violence in the CYA. In the six institutions he studied, there were more than 4,000 ward-on-ward physical assaults and 1,000 cases of sexual harassment. This averages to about 10 assaults per day in six institutions having a combined total population of 3,800 youths. The 2003 CYA review highlights the rampant violence that youths experience from both guards and other inmates. Although the CYA is one of the larger and more violent youth prison systems in the United States, there is no doubt that violence looms large in the minds of all children who are incarcerated (Krisberg 2003).

The push toward incarcerating more juveniles in secure facilities has produced some troubling results. If the success of incarceration strategies is measured by how many children are rearrested after their release, then most states that operate under the incarceration model are failing miserably. In California, for example, nearly 91 percent of those released from the CYA are arrested within three years (Center for Juvenile and Criminal Justice 2007). In Pennsylvania, nearly 55 percent are rearrested within 18 months, and in Utah, 79 percent are rearrested within a year (Krisberg 2005). These failure rates, coupled with media stories of abuse, have led some organizations to call for a shift from the incarceration model to a rehabilitation model. Organizations like Books Not Bars of Oakland, California, organize formerly incarcerated youth and their parents to protest the continued operation and expansion of large-scale youth prisons. Through protests and political lobbying, Books Not Bars pressures local and state officials to close the large institutions and replace them with smaller facilities that focus on rehabilitation.

Their efforts, along with the efforts of other youth justice organizations, have led to a significant drop in the number of youths confined in the CYA.

Alternatives to Incarceration: The Shift to Rehabilitation

Activist demands to close large-scale youth prisons and jails echo the child advocates of the 1930s and 1960s, who challenged the increasing reliance on juvenile institutionalization. Some states, like Missouri, have cast aside the incarceration model in favor of a rehabilitation model that relies heavily on preventative programs, alternatives to incarceration, and community-based solutions. In 1983, Missouri closed its large institutions for juveniles and opened several small community-based rehabilitation centers throughout the state, where residents could be located closer to home. Although most states have facilities that house 100 or more youths, Missouri's institutions house no more than 36 children per facility (Missouri Division of Youth Services 2000). Missouri also has a number of different types of facilities, ranging from small, secure institutions to group homes to day treatment centers.

Unlike the large youth prison of other states, Missouri's secure facilities have no cells or barracks-style housing units. Instead, the children are housed in dormitory settings and are allowed to wear their own clothing rather than institutional uniforms. Guards are replaced with college graduates who receive specialized training on how best to interact with the children they supervise. As a result, Missouri experiences far less conflict between staff and the youths, paving the way for supportive relationships to develop. Moreover, rather than being closed institutions, community organizations are a vital part of the programming, as children are allowed to leave the facilities to work in the community on supervised projects. Missouri also has several group homes where children charged with less serious offenses are held. In these homes, youths are allowed to attend school and work outside of the facility.

Missouri's rehabilitation model has been far more successful than those in other states. The recidivism rate in Missouri is far lower than those of California, Utah, and Pennsylvania. Only 9 percent of the youths are reincarcerated in juvenile or adult facilities after their release (Missouri Division of Youth Services 2000). Moreover, because the facilities in Missouri do not rely heavily on guards, the security costs to run them are far lower than those of other states. Whereas California spends nearly $80,000 to house a child in the CYA, Missouri spends $40,000, with far better results. Missouri continues to be a model for other states and may signal a future shift in national juvenile justice policies.

Conclusion

The history of juvenile justice in the United States has revolved around several competing approaches to dealing with juvenile delinquency. From the early calls for confinement within Houses of Refuge to the more recent demands for deinstitutionalization

in Massachusetts and Missouri, juvenile justice has always shifted and changed with the times. During periods of moral panic laced with racial anxiety and fear, the United States has moved toward punitive strategies that expose children, especially children of color, to systemic violence and abuse. As youth advocates and activists highlight the failure of more punitive polices, however, states are beginning to search for more effective strategies that move from incarceration to rehabilitation.

See also **Alternative Treatments for Criminal Offenders; Gang Injunction Laws; Juveniles Treated as Adults; School Violence; Gangs (vol. 3)**

Further Reading

Austin, James, and John Irwin, *It's about Time: America's Imprisonment Binge.* Stamford, CT: Wadsworth, 2001.

Bennett, Lerone, *Before the Mayflower: A History of Black America.* Chicago: Johnson, 1993.

Bickel, Christopher, "Jaded by the System: Authoritarianism and Resistance in a Juvenile Detention Center." Unpublished manuscript, University of California, Santa Barbara, 2004.

Books Not Bars, http://www.booksnotbars.org

Center for Juvenile and Criminal Justice, *Reforming the Juvenile Justice System.* Boston: Beacon Press, 2007.

Criminal Justice Training Commission, *Juvenile Workers Academy,* Part 2, "Supervision." Olympia, WA: n.d.

Finkelstein, Barbara, "A Crucible of Contradictions: Historical Roots of Violence Against Children in the United States." In *The Public Assault on America's Children: Poverty Violence and Juvenile Injustice,* ed. V. Polakow. New York: Teachers College Press, 2000.

Hancock, LynNell, "Framing Children in the News: The Face and Color of Youth Crime in America." In *The Public Assault on America's Children: Poverty Violence and Juvenile Injustice,* ed. V. Polakow. New York: Teachers College Press, 2000.

Krisberg, Barry, *General Corrections Review of the California Youth Authority.* San Francisco: National Council on Crime and Delinquency, December 2003.

Krisberg, Barry, *Juvenile Justice: Redeeming Our Children.* Thousand Oaks, CA: Sage, 2005.

Mauer, Marc, *Race to Incarcerate.* New York: New Press, 1999.

McShane, Marilyn D., and Frank P. Williams III, eds., *Youth Violence and Delinquency: Monsters and Myths.* Westport, CT: Praeger, 2007.

Missouri Division of Youth Services, "System Change through State Challenge Activities." *Juvenile Justice Bulletin.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention, March, 2000.

National Council on Crime and Delinquency, *And Justice for Some: Differential Treatment of Youth of Color in the Justice System.* San Francisco: Author, 2007.

National Council on Crime and Delinquency, http://www.nccd-crc.org; Center on Juvenile and Criminal Justice, http://www.cjcj.org

National Criminal Justice Commission, *The Real War on Crime,* ed. Steven Donziger. New York: Harper Perennial, 1996.

Office of Juvenile Justice and Delinquency Prevention, *Juveniles in Correctional Facilities.* Washington, DC: U.S. Department of Justice, 1999.

Polakow, Valarie, *The Public Assault on America's Children: Poverty Violence and Juvenile Injustice.* New York: Teachers College Press, 2000.

Scott, Elizabeth S., *Rethinking Juvenile Justice.* Cambridge, MA: Harvard University Press, 2008.

JUVENILES TREATED AS ADULTS

Cary Stacy Smith and Li-Ching Hung

Since the mid-1990s, fear of juvenile crime and criminals has undermined what was considered the norm for many years; that is, the idea that most crimes committed by juveniles should be tried in a juvenile court. Using a punitive adult model for adolescents and preteens required the courts to assume that the youthful transgressor was equal to an adult in terms of culpability; naturally, there was and is widespread disagreement on this issue. Some argue that it is the height of folly to think that an average teenager is incapable of understanding criminal proceedings, whereas others state that it is highly unethical for judges and district attorneys to prosecute adolescents in an adult venue (Steinberg 2005). Other controversies question the wisdom, for example, of placing youths in institutional situations where they are likely to experience physical and/or sexual abuse.

Background

In 1899, the first juvenile court system within the United States was established in Cook County, Illinois; shortly thereafter, juvenile courts spread to all states of the union.

Within juvenile courts, adolescent offenders are treated differently than their adult counterparts. For instance, what is considered legal for adults may not be legal for juveniles. Violations known as status offenses—such as being truant, running away from home, and using alcohol—are behaviors that are not against the law for adults but are

COMPARATIVE VIOLENCE IN ADULT AND JUVENILE INSTITUTIONS

Fifty percent of children incarcerated in adult prisons reported being attacked with a weapon, and 10 percent reported having been sexually attacked. Only 1 percent reported the same in a juvenile institution.

Source: Vincent Shiraldi and Jason Zeidenberg, "The Risks Juveniles Face When They Are Incarcerated with Adults." Justice Policy Institute (1997). www.justicepolicy.org/images/upload/97-02_REP_RiskJuvenilesFace_JJ.pdf

considered infractions if performed by juveniles. The primary aim of juvenile courts is to guide, not punish, adolescents who have violated the law. In addition, although adult law focuses on the offense, juvenile law focuses on the offender, and attempts are made to rehabilitate any transgressors. Other differences include the following: (1) juveniles are adjudicated rather than pronounced guilty, (2) juvenile records may be sealed at the judge's discretion, and (3) juveniles do not have the right to a jury trial. Moreover, juveniles are usually placed in special facilities, away from hardened, adult criminals. With serious crimes, however, exceptions are made (Jonson-Reid 2004).

Law enforcement has the option of preventative detention, meaning that a youth may be detained for his or her protection or the community's protection. Because the juvenile court system is highly individualized, sentences vary from court to court and state to state and may cover a wide range of community-based and residential options. The disposition is based on an adolescent's history and the severity of his or her offenses and includes a significant rehabilitation component. Moreover, the disposition can be for an unspecified period; the court has the authority to send a youth to a specific facility or program until he or she is deemed rehabilitated or until he or she reaches the age of majority. The disposition may also include a restitution component and can be directed at people other than the offender, such his or her parents. Parole combines surveillance with activities to reintegrate the juvenile into the community.

One reason juveniles are transferred to criminal court is the general belief that if adolescents (both violent and nonviolent) are exposed to the adult criminal justice system, any criminal urges would be extinguished. Unfortunately, the literature does not back this supposition. A 1996 study looked at 2,738 juvenile offenders transferred to criminal court in Florida with a matched sample of nontransferred juveniles. Juveniles tried as adults were more likely to be incarcerated, incarcerated for longer periods than those who remained in the juvenile system, and had a higher recidivism rate. Within two years, they were more likely to reoffend, to reoffend earlier, to commit more subsequent offenses, and to commit more serious subsequent offenses than juveniles retained in the juvenile system (Bishop, Frazier, Lanza-Kaduce, and Winner 1996).

Studies on Juveniles and Justice

During 2003, a study titled Adolescent Development and Juvenile Justice, conducted by the John D. and Catherine T. MacArthur Foundation Research Network, examined more than 1,400 people between the ages of 11 and 24 in Philadelphia, Los Angeles, northern and eastern Virginia, and northern Florida. Each participant was given an intelligence test and later asked to respond to several hypothetical legal situations, such as whether confessing to a police officer if he or she committed a crime was a smart move. Interestingly, the researchers found that one-third of those aged 11 to 13 and one-fifth of those aged 14 to 15 could not understand the proceedings regarding their alleged crimes, nor could they supply help to their defense lawyers. The study recommended that states

reconsider the minimum age at which juveniles may be tried as adults or that a system for evaluating defendants' competency be created.

The report was released on the heels of a 10-year effort by states trying to make it easier to try children as adults (Steinberg 2005).

The question is this: Is it OK to place children with adults in prison, where the older convicts will likely teach them how to be successful criminals and where they will probably experience both physical and sexual abuse? For example, one 17-year-old adolescent held with adult convicts in an Idaho jail was sexually tortured and murdered by the adult inmates. In Ohio, a 15-year-old girl was sexually assaulted by a deputy jailer after being placed in an adult jail for a minor infraction, and in Kentucky, approximately 30 minutes after a 15-year-old was put in a jail cell following an argument with his mother, he hanged himself. In one year, four children held in Kentucky jails committed suicide (Zeidenberg and Schiraldi 1997).

In 1989, a study compared how youths were treated at a number of juvenile training schools with those serving time in adult prisons. Unsurprisingly, five times as many adolescents held in adult prisons answered yes to the question "Has anyone attempted to sexually attack or rape you?" In addition, the statistics regarding youth rape in prisons were coupled with the fact that children placed with adults were twice as likely to report being physically abused by staff. The juveniles in adult prison were also 50 percent more likely to report being attacked with a weapon. Close to 10 percent of the youth interviewed reported a sexual violation.

Little research exists regarding any quantitative data on rape, suicide, and assault rates among the thousands of juveniles sentenced to adult prisons each year or the 65,000 children who pass through the jail system. Several states classify suicide under deaths due to "unspecified" causes in their yearly reports, thus making the problem invisible. Rape in prison is listed under inmate assault; hence, the problem is opaque. Approximately 25,000 children each year have their cases transferred to criminal court instead of being tried in juvenile courts, where the majority of convicted defendants are usually set free by the time they turn 21 (Senate Committee on the Judiciary 2000).

Many judges will not prosecute youths as adults, as in the case of Nathaniel Abraham. At age 11, he was charged with first-degree murder and was to be prosecuted under a 1997 Michigan law that allowed adult prosecutions of children of any age in serious felony cases. Abraham was eventually convicted of second-degree murder, but the presiding judge felt that the new law was flawed and sentenced him to youth detention rather than life imprisonment (Steinberg 2005). In Texas, Lacresha Murray, an 11-year-old girl, was convicted twice for the death of a 2-year-old who spent the day in her home. After extensive questioning, without guardians or an attorney present, she admitted that she might have dropped and then kicked the toddler. The presiding judge dismissed all criminal charges leveled against her (Fritsch, Caeti, and Hemmens 1996).

Key Events

According to the National Center for Juvenile Justice, a private, nonprofit research group, between 1992 and 1999, every state except Nebraska passed laws making it easier for juveniles to be tried as adults. Even though Nebraska passed no new laws on the subject during that seven-year period, it is among the 14 states and the District of Columbia that allow prosecutors to file charges against juveniles in criminal court (Fritsch, Caeti, and Hemmens 1996). Each of the 50 states has specific provisions that determine whether certain juveniles may be tried as adults in criminal court (for example, those charged with capital crimes or other serious felonies). This procedure is commonly called a *transfer to criminal court* and has three primary mechanisms: judicial waiver, statutory exclusion, and concurrent jurisdiction.

- Forty-five states have judicial waiver provisions, in which the juvenile court judge has the vested authority to waive juvenile court jurisdiction and transfer the case to criminal court if he or she feels that the crime committed warrants more punishment than is commonly meted out within the juvenile justice system.
    - Threshold criteria that must be met before the court may consider waiver: generally a minimum age, a specified type or level of offense, a sufficiently serious record of previous delinquency, or some combination of the three.
    - In all states in which discretionary waiver is authorized, the juvenile court must conduct a hearing at which the parties are entitled to present evidence bearing on the waiver issue. Generally, state law specifies factors a court must weigh and findings it must make in order to arrive at the determination that a juvenile is no longer amenable to treatment as a juvenile.
    - The prosecution usually bears the burden of proof in a discretionary waiver hearing; however, some states designate special circumstances under which this burden may be shifted to the child. Generally, a prosecutor seeking a waiver to criminal court must make the case for waiver by a preponderance of the evidence.

- Twenty-nine states have statutory exclusion laws excluding youths who commit certain serious offenses and/or repeat offenses from the jurisdiction of the juvenile court. These laws are different from mandatory waiver laws in that, with statutory exclusion, the adult court has jurisdiction over a case from the beginning, without a juvenile court waiver hearing.
- Seventeen states allow for concurrent jurisdiction of offending youth in both the juvenile and adult court systems. Adolescents aged 14 or older who commit certain felonies are subject to transfer to adult criminal court for prosecution at the discretion of the judge. Transfer proceedings are mandatory in instances

of murder or aggravated malicious wounding. Prosecutors in instances of lesser felonies may also directly file for jurisdictional transfers. Once initiated, any transfer to adult court may be petitioned for reverse waiver back to juvenile court (Fritsch, Caeti, and Hemmens 1996).

In addition to state governments, the federal government also has the option of treating children as adults. There are many federal rules regarding juveniles, too many to detail here, including Federal Rule 106, which states the Federal Bureau of Investigation and other federal law enforcement agencies should aid local and state authorities in the apprehension of gang members. The rule's language is condescending, stating that local law enforcement has become frustrated with the state criminal systems and that federal assistance is sorely needed. Most defendants serve a bare minimum of time, however, and although the adult criminal system is ineffective in curtailing gang violence, the juvenile system is much worse. Most juvenile delinquents are handled by the state and are usually released immediately or lightly punished; thus, the states need guidance from the federal government (U.S. Department of Justice 1997b).

On the other hand, violent criminals (both adult and adolescent) are gaining a keen respect for the federal criminal system. They are aware of the abolition of parole as well as the severe guidelines and enhanced sentencing for drug- and firearms-related federal crimes. It is imperative for the safety of the citizens of the United States that U.S. attorneys' offices become more involved in seeking out the most serious juvenile offenders for prosecution as delinquents or transferring them for criminal prosecution as adults (U.S. Department of Justice 1997a); all may be found in the *Criminal Resource Manual* (U.S. Department of Justice 1997c).

Federal Rule 126 states that juveniles charged with serious offenses and who have prior criminal history and have proved unreceptive to treatment in the juvenile justice system may be considered for transfer to adult status. Any decision to transfer should be based upon discussion with the investigating agents, a prosecution policy that targets the most serious juvenile offenders, and a comparison of effective alternatives that may be available in the given state jurisdiction (U.S. Department of Justice 1997a).

Federal Rule 140 discusses the mandatory transfer of juveniles to adult status. Adult status for juveniles is mandatory if the acts were committed after his or her 16th birthday and would be tried as felonies involving the use, attempted use, or threatened use of physical force against another. In addition, if a substantial risk of physical force was used against another in committing the offense or if a juvenile has previously been found guilty of an act for which an adult would face prison time, such an offender may be transferred to adult status. Finally, the act must be one of the offenses set forth in this rule or an offense in violation of a state felony statute (U.S. Department of Justice 1997d).

Conclusion

Several states have laws saying that it is legal to sentence an adolescent to death if he or she was convicted of a capital offense. On March 1, 2005, the U.S. Supreme Court in *Roper v. Simmons* struck down the use of capital punishment for offenders committing crimes before the age of 18. In 1993, Christopher Simmons (who was 17 at the time) formulated a plan with two younger friends to murder Shirley Crook. In essence, the plan was to commit burglary and murder by breaking and entering, tying up Ms. Crook, and then tossing her from a bridge. At the trial's conclusion, Simmons was sentenced to death. He first moved for the trial court to set aside the conviction and sentence, citing, in part, ineffective assistance of counsel. His young age and impulsivity, along with a troubled background, were brought up as issues that Simmons claimed should have been raised at the sentencing phase. The trial court rejected the motion, and Simmons appealed. Finally, the case was argued in the U.S. Supreme Court. Justice Anthony Kennedy, writing for the majority, cited sociological and scientific articles stating that juveniles are immature and lacking a sense of responsibility as compared with adults (*Roper v. Simmons* 2005).

The Court noted that in recognition of the comparative immaturity and irresponsibility of juveniles, almost every state prohibited those younger than age 18 from voting, serving on juries, or marrying without parental consent. The studies also found that juveniles are more vulnerable to negative influences and outside pressures, including peer pressure. They have less control, or experience with control, over their own environment. Thus, the Court held that executing someone who was younger than age 18 at the time of the murder was committed was cruel and unusual punishment (*Roper v. Simmons* 2005). In a subsequent case from 2010, *Graham v. Florida,* the Court determined that life imprisonment for a juvenile offender convicted of any crime other than homicide likewise constitutes cruel and unusual punishment and must not be applied (Liptak 2010).

Little disagreement exists regarding the minute number of teens who should be tried in the adult criminal justice system (with the prominent exception of the death penalty) if they pose a sincere threat to those around them. Likewise, there is little bickering about severely delinquent adolescents (rapists, murderers, arsonists, etc.) receiving commensurate punishment for the scope of their crimes. However, thousands of young people are being prosecuted daily within the adult system, although many are charged with nonviolent crimes. This should give cause for quiet reflection, because the primary reason for youth courts was and is to adjudicate young people who had broken the law in a nonviolent fashion. If society punishes adolescents as it does adults, even if their transgressions do not warrant it, does the get-tough policy benefit the public?

Sadly, the prevailing mindset of many lawmakers is "If you do the crime, do the time—regardless of age." Thus, many adolescents and preteens whose crime was of a nonviolent nature will remain incarcerated with adult criminals, who will continue their physical and sexual abuse of children—all at taxpayer expense.

See also **Gang Injunction Laws; Juvenile Justice; Prison Sexual Assault; Gangs (vol. 3)**

Further Reading

Bishop, D. M., C. E. Frazier, L. Lanza-Kaduce, and L. Winner, "The Transfer of Juveniles to Criminal Court: Does It Make a Difference?" C*rime and Delinquency* 42 (1996): 171–191.

Butts, J., and G. Halemba, *Waiting for Justice: Moving Young Offenders through the Juvenile Court Process.* Pittsburgh, PA: National Center for Juvenile Justice, 1996.

Dawson, R. O., "The Future of Juvenile Justice: Is It Time to Abolish the System?" *Journal of Criminal Law and Criminology* 81 (1990): 136–155.

Fritsch, E. J., T. J. Caeti, and C. Hemmens, "Spare the Needle but not the Punishment: The Incarceration of Waived Youth in Texas Prisons." *Crime and Delinquency* 42, no. 4 (1996): 593–609.

Jonson-Reid, M., "Child Welfare Services and Delinquency: The Need To Know More." *Child Welfare* 83, no. 2 (2004): 157–174.

Kupchik, A., *Judging Juveniles: Prosecuting Adolescents in Adult and Juvenile Courts.* New York: New York University Press, 2006.

Liptak, Adam, "Justices Limit Life Sentences for Juveniles." *New York Times* (May 17, 2010). www.nytimes.com/2010/05/18/us/politics/18court.html

Puzzanchera, C. M., "Delinquency Cases Waived to Criminal Court, 1988–1997." *OJJDP Fact Sheet.* Washington, DC: U.S. Government Printing Office, 2000.

Roper v. Simmons, 543, U.S. 551 (2005).

Scott, Elizabeth S., *Rethinking Juvenile Justice.* Cambridge, MA: Harvard University Press. 2008.

Senate Committee on the Judiciary, "Putting Consequences Back into Juvenile Justice at the Federal, State, and Local Levels." Washington, DC: Government Printing Office, 2000.

Steinberg, L., *A Prospective Study of Serious Adolescent Offenders in Philadelphia.* Philadelphia: Pennsylvania Council on Crime and Delinquency, 2005.

U.S. Department of Justice, "Rule 106, Federal Involvement in Prosecuting Gang Activity." *Title 9: Criminal Resource Manual.* Washington, DC: U.S. Government Printing Office, 1997a.

U.S. Department of Justice, "Rule 126, Treating Juveniles as Adults for Criminal Prosecution—Generally." *Title 9: Criminal Resource Manual.* Washington, DC: U.S. Government Printing Office, 1997b.

U.S. Department of Justice, *Title 9: Criminal Resource Manual.* Washington, DC: U.S. Government Printing Office, 1997c.

U.S. Department of Justice, "Rule 140, Mandatory Transfer of Juveniles to Adult Status." *Title 9: Criminal Resource Manual.* Washington, DC: U.S. Government Printing Office, 1997d.

Zeidenberg, J., and V. Schiraldi, *The Risks Juveniles Face When They Are Incarcerated with Adults.* Washington, DC: Justice Policy Institute, 1997. http://www.cjcj.org/pubs/risks/riskspr.html.

M

MIRANDA WARNINGS

Jo-Ann Della Giustina

"You have the right to remain silent." We hear it on television, in the movies, and in music lyrics. The Miranda warnings have become so embedded in routine police practices that they have become a part of our national culture. Yet, they remain controversial. The Miranda rule was intended to protect against coerced confessions but has been criticized for tying the hands of law enforcement and favoring criminals. Moreover, some argue that it provides a method by which a guilty person can go free.

Shortly after ruling that the Fifth Amendment privilege against self-incrimination was applicable to the states (*Miranda v. Arizona* 1966), the U.S. Supreme Court ruled in the 1966 landmark case of *Miranda v. Arizona* that a person in police custody must be informed of his or her constitutional right against self-incrimination before being questioned. Without the Miranda warnings, any statement given during a custodial interrogation is not admissible in court proceedings. The Court stated that "[t]he prosecution may not use statements…stemming from questioning initiated by law enforcement officers after a person has been taken into custody or otherwise deprived of his freedom of action in any significant way, unless it demonstrates the use of procedural safeguards effective to secure the Fifth Amendment's privilege against self-incrimination" (*Brown v. Mississippi* 1936). The Court explained that the Miranda rule goes to the root of the "concepts of American criminal jurisprudence: the restraints society must observe consistent with the Federal Constitution in prosecuting individuals for crime" (*Brown v. Mississippi* 1936).

Background

During the early 20th century, the Supreme Court applied a due process voluntariness test, rooted in common law (*Leyra v. Denno* 1954), to determine the admissibility of a suspect's confession. The due process test weighs all the surrounding circumstances, including the details of the interrogation and the characteristics of the detainee. Early cases explained that the use of physical brutality and psychological pressure violate due process rights by overcoming a detainee's will.

While voluntariness has remained a requirement for confessions, the Court changed its focus in the 1960s. In 1964, the Court decided two landmark cases. In *Malloy v. Hogan,* the Court applied the Fifth Amendment's self-incrimination clause to the states, and in *Escobedo v. Illinois,* the Court ruled that the police violated the detainee's right to counsel because they did not advise him of his constitutional privilege to remain silent or his right to consult with his attorney. As a result, his statements were inadmissible.

Two years later, the Supreme Court decided *Miranda v. Arizona,* in which the Court remarked that reliance on the traditional totality of the circumstances test was inadequate to insure that a custodial confession would be voluntary. The Court noted that custodial police interrogation, by its very nature, isolates and pressures the individual. Because of this inherent compulsion in custodial surroundings, the Court presumed that all statements given during custodial police interrogation are compelled unless the detainee is informed of his or her right to remain silent and to have an attorney present during the interrogation and then knowingly and voluntarily waives those rights. The coercion inherent in custodial interrogations blurs the line between involuntary and voluntary statements, thereby increasing the risk that an individual will not be guaranteed his or her constitutional privilege against self-incrimination.

To ensure that police interrogation conforms to the Fifth Amendment requirements, the Court established concrete constitutional guidelines for law enforcement agencies and the courts. Under those guidelines, the admissibility of a statement given during custodial interrogation depends on whether the police provided the detainee with procedural safeguards sufficient to secure the Constitution's privilege against self-incrimination. The police must inform the detainee that he or she has the right to remain silent, that any statement he or she makes can be used against him or her in a court of law, that he or she

THE MIRANDA WARNINGS

A detainee has the right to remain silent.
Any statement a detainee makes can be used against him or her in a court of law.
A detainee has the right to the presence of an attorney during any interrogation.
If the detainee cannot afford an attorney, one will be appointed prior to any questioning.

has the right to the presence of an attorney, and that if he or she cannot afford an attorney, one will be appointed prior to any questioning.

Key Legal Cases

Since the Miranda decision, the Court has clarified, narrowed, and reinforced the Miranda rule. One significant issue clarified is when custody occurs. Custody does not necessarily mean a formal arrest. Instead, it is based on how a reasonable person in the detainee's situation would perceive his or her freedom to leave (*Michigan v. Mosley,* 1975). A person is in custody when the police have exerted physical or psychological authority so that a reasonable person would not believe that she or he was free to leave. In *Thompson v. Keohane* ((1981), the Court described the Miranda custody test as follows: "Two discrete inquiries are essential to the determination: first, what were the circumstances surrounding the interrogation; and second, given those circumstances, would a reasonable person have felt he or she was not at liberty to terminate the interrogation and leave."

Custody, however, is not the only issue clarified by the Court. Miranda warnings are required only before a detainee is interrogated. If the police do not question the detainee, no Miranda warnings are needed. Moreover, standard booking questions, such as name, date of birth, and address, are allowed without Miranda warnings.

The Court has given direction to law enforcement on what actions must be taken if the detainee invokes the right to silence or to an attorney. Pursuant to *Michigan v. Mosley* (1984), if the detainee indicates that he or she does not want to be interrogated, the police must immediately stop the questioning. However, the police may resume the interrogation after a significant period of time has passed and a new set of Miranda warnings is given.

In contrast, *Edwards v. Arizona* ((1971), established a bright-line rule that once a person in custody asserts her or his right to an attorney, the interrogation must end until an attorney is present. If the police subsequently initiate a discussion in the absence of an attorney, the detainee's statements are presumed involuntary even if he or she signs a waiver. An exception to this rule exists if either the detainee or the police ask a question relating to routine incidents of the custodial relationship (e.g., food, water, etc.) because it does not represent a desire to open up a more generalized discussion related directly or indirectly to the investigation.

Moreover, a detainee may subsequently waive the right to have an attorney present after he or she has invoked his or her right by reopening the dialogue with the authorities. It must be shown that the accused initiated the conversation in a manner indicating a desire and willingness to open a generalized discussion about the investigation. There must then be a knowing and intelligent waiver of his or her right to counsel's presence during questioning. Any waiver must be unbadgered, which depends on the particular facts and circumstances of each case.

There has been some confusion over whether the police must provide an attorney if the detainee requests one but cannot afford to pay for that attorney. The Miranda rule does not require that a lawyer be present at all times to advise detainees in the police station. Instead, it prescribes only that the police may not question the detainee without an attorney present if the detainee has invoked his or her right to counsel. In other words, if the detainee cannot afford to pay for an attorney but requests counsel, the police cannot question him or her unless they provide an attorney before any questioning occurs. There is no requirement that the police provide an attorney if no interrogation is conducted.

Public criticism of the Miranda warnings has led to a weakening of its requirements. Since the early 1970s, the Supreme Court has created numerous exceptions to the Miranda warnings, resulting in many un-Mirandized statements being legally admitted into evidence.

A narrow public safety exception was created in *New York v. Quarles* (2004). If public safety merits, the police officer may ask reasonable questions to secure his or her own safety or the safety of the public prior to the Miranda warnings without jeopardizing the admissibility of the statement. An example of a proper public safety question is to ask the detainee about the location of an abandoned weapon. Similarly, under the so-called stop-and-identify exception, an officer may ask a suspect his or her name and address without providing Miranda warnings.

Another exception was established in *Harris v. New York* ((1976), which allowed a detainee's un-Mirandized custodial statements to be used to impeach his credibility during his trial testimony. Because the detainee did not claim that his prior inconsistent statements were coerced or involuntary, the Court explained, they were admissible because the Miranda rule was not a license for the defendant to use perjury.

In addition to carving out exceptions to the Miranda rule, the Supreme Court has also reinforced the rule. In *Missouri v. Seibert* (2004), the Court struck down the police technique of giving the Miranda warnings only after a detainee had made an incriminating statement. Police officers were interrogating a detainee without Miranda warnings until he or she gave an incriminating statement. At that point, the officer would inform the detainee of his or her constitutional rights, obtain a waiver of those rights, and have the detainee repeat the statement. The Court declared that this type of coordinated and continuing interrogation is improper because it is likely to mislead the detainee.

Further, in *Doyle v. Ohio* (1976), the Court ruled that the prosecution could not comment at trial on a detainee's silence after Miranda warnings are given. The Court explained that using a detainee's silence to impeach him or her at trial would be fundamentally unfair and a deprivation of due process rights.

In 2000, the Court reaffirmed the Miranda opinion in *Dickerson v. United States.* Relying on the rule of *stare decisis,* or the principle of precedent, the Court reaffirmed *Miranda v. Arizona* despite its recognition that the Miranda rule may allow a guilty defendant to go free if incriminating statements are excluded at trial. The Court held

that Miranda is a constitutional rule that has become so embedded in routine police practices that it has become a part of our national culture. The Court rejected the argument that the Miranda rule ties the hands of law enforcement and the courts. It declared that the police have adjusted their practices to the rule's requirements as its meaning has become clear by Supreme Court cases subsequent to *Miranda v. Arizona.* The Court concluded that those cases "have reduced the impact of the *Miranda* rule on legitimate law enforcement while reaffirming the decision's core ruling that unwarned statements may not be used as evidence in the prosecution's case" (*Dickerson v. United States* 2000 [italics in original]).

Miranda and Terrorism

Miranda holds as the law of the land insofar as civilian courts are concerned. In the case of suspected terrorists, however, where the assumption is that military tribunals will be employed, Miranda warnings do not apply. Under the administration of George W. Bush, terrorist suspects, such as those detained at the U.S. facility in Guantanamo, were not Mirandized. The intention was to subject the detainees to military trials. By 2009, with Guantanamo scheduled to close (albeit later than planned), some commentators noted that the absence of Miranda warnings in these cases limited U.S. prosecutors' abilities to try them—at least under any civilian jurisdictions. At a minimum, such cases raised legal questions, thus opening the door for possible challenges down the road. Initially, therefore, the incoming Obama administration sought to cover its bases by Mirandizing all new terrorist suspects (including the "Christmas Day bomber," Umar Farouk Abdulmutallab). Following the attempted car-bombing of Times Square in May 2010 (by Faisal Shahzad), however, the administration announced that it would no longer Mirandize terrorist suspects and would most likely pursue military justice in these cases (Perez 2009; Savage 2010).

Conclusion

There was an intense political reaction following the Miranda decision. Law enforcement and prosecutors argued that it was a major blow to their ability to solve crimes; political officials argued that criminals would go free. Eventually, its acceptance grew. Since *Miranda v. Arizona* has been upheld as a constitutional decision, the debate seems to be closed—at least in the case of civilian courts. The Court has reinforced the principle that detainees will be protected by the Fifth Amendment but has not foreclosed the possibility that further exceptions to the Miranda rule will be established in the future.

See also **Miscarriages of Justice; Patriot Act; Search Warrants**

Legal Citations

Brown v. Mississippi, 297 U.S. 278 (1936).
Dickerson v. United States, 530 U.S. 428 (2000).

Doyle v. Ohio, 426 U.S. 610 (1976).
Edwards v. Arizona, 401 U.S. 222 (1971),
Escobido v. Illinois, 378 U.S. 478 (1964).
Harris v. New York, 426 U.S. 610 (1976).
Leyra v. Denno, 347 U.S. 556 (1954).
Malloy v. Hogan, 378 U.S. 1 (1964).
Michigan v. Mosley, 423 U.S. 96 (1975).
Miranda v. Arizona, 384 U.S. 436 (1996).
Missouri v. Seibert, 543 U.S. 600 (2004).
New York v. Quarles, 542 U.S. 600 (2004) and 542 U.S. 177 (2004).
Thompson v. Keohane, 451 U.S. 477 (1981).
Yarborough v. Alvarado, 541 U.S. 652 (2004).

Further Reading

Dershowitz, Alan M., *Shouting Fire: Civil Liberties in a Turbulent Age.* Boston: Little, Brown, 2002.
Perez, Evan, "Miranda Issues Cloud Gitmo Cases." *Wall Street Journal* (June 12, 2009). http://online.wsj.com/article/SB124476465967008335.html
Rotunda, Kyndra Miller, *Honor Bound: Inside the Guantanamo Trials.* Durham, NC: Carolina Academic Press, 2008.
Savage, Charlie, "Administration Supports Limits on Miranda Rule." *New York Times* (May 10, 2010): A1.
Stuart, Gary L., *Miranda: The Story of America's Right to Remain Silent.* Tucson: University of Arizona Press, 2004.
White, Welsh S., *Miranda's Waning Protections.* Ann Arbor: University of Michigan Press, 2001.
Wrightsman, Lawrence S., and Mary L. Pittman, *The Miranda Ruling: Its Past, Present, and Future.* New York: Oxford University Press, 2010.

MISCARRIAGES OF JUSTICE

Robert M. Bohm

Miscarriages of justice are not like other criminal justice controversies. Typically, people oppose miscarriages of justice; however, sometimes folks will promote miscarriages of justice for other purposes. When people agree that miscarriages of justice have occurred, they are almost universally condemned. However, controversies may arise over whether or not a miscarriage of justice has occurred. Making matters more complicated are issues of intent. Some of the miscarriages are unintentional or accidental. They are committed by fallible human beings who are simply attempting to do their jobs as best they can. Other miscarriages are intentional and venal. People commit them to further personal or professional agendas. This entry examines miscarriages of justice in the United States, what they are, what causes them, and possible remedies.

A miscarriage of justice has been defined as "a grossly unfair outcome in a judicial proceeding, as when a defendant is convicted despite a lack of evidence on an essential element of the crime" *(Black's Law Dictionary* 2000, 811). This definition focuses narrowly on wrongful convictions, which have received the most interest of scholars writing in this area but are only one type of miscarriage of justice. Miscarriages of justice also include wrongful arrests, wrongful charges or indictments, and wrongful sentences. They may include harassment by a law enforcement officer, an attorney failing to file a timely appeal, or correctional officials failing to release an inmate in a timely fashion once his or her sentence has expired. As such, the police and other law enforcement officials, defense attorneys, prosecutors, judges, and jurors as well as correctional officials commit miscarriages of justice.

Two general types of miscarriages of justice are "errors of due process" and "errors of impunity" (Forst 2004). Errors of due process involve "unwarranted harassment, detention or conviction, or excessive sanctioning of people suspected of crime" (Forst 2004, 10). "Errors of impunity" involve "a lapse of justice that allows a culpable offender to remain at large" (Forst 2004, 23) or, in some other way, to escape justice. Errors of due process can cause errors of impunity. In other words, if a person is arrested, convicted, and imprisoned for a crime that he or she did not commit, there is a good chance that the real offender will remain free to prey on other people. On the other hand, there is also a chance that the real offender will be arrested, convicted, and imprisoned for another crime. Although either type of error can undermine the integrity and legitimacy of the criminal justice process, (Forst 2004, 212–219) the bulk of the scholarship to date has focused on errors of due process.

Background

Until recently, the subject of miscarriages of justice—whether errors of due process or errors of impunity—had not received much scholarly attention from social scientists and especially criminologists. In fact, prior to Yale Law Professor Edwin Borchard's pioneering book *Convicting the Innocent* (1932), conventional wisdom suggested that innocent people were almost never wrongfully convicted. That such injustices probably occurred more frequently than most people thought was criminal justice's little secret.

Much of the newer miscarriages of justice research has focused on capital punishment. A principal reason is that capital cases generally receive more scrutiny than other felony cases because of the punishment's finality and the requirement that an appellate court review capital convictions and/or sentences. It is likely, however, that the miscarriages in capital cases that have been revealed represent only the tip of the proverbial iceberg of all miscarriages of justice, either in capital cases or in all criminal cases. The problem is that there is no official record of miscarriages of justice, so it is impossible to determine precisely how many there are and how often they occur.

The public is no longer so sanguine about the infallibility of the justice system. For example, in a 2009 Gallup poll of adults nationwide, 59 percent of respondents thought,

A STUDY OF EXONERATIONS IN THE UNITED STATES

Law Professor Samuel R. Gross and his colleagues identified 328 exonerations from 1989 through 2003.* They claim that it is "the most comprehensive listing of exonerations to date." They defined "exoneration" as "an official act declaring a defendant not guilty of a crime for which he or she had previously been convicted." According to the researchers, the 328 exonerations in their list represent only the "tip of an iceberg" and do not include, for example, the mass exonerations of the approximately 135 innocent defendants who were victims of the rogue officers of the Los Angeles Police Department's Rampart division in 1999–2000 or the 39 innocent drug defendants framed by a Tulia, Texas, undercover police officer in 2003. The researchers found that the rate of exonerations increased dramatically over the 15-year period—that is, there were many more "discovered" exonerations toward the end of the period than at the beginning.

Ninety-seven percent of the exonerations discovered by Gross and his colleagues involved defendants convicted of murder and/or rape. Forty-four percent of the wrongfully convicted defendants were cleared by DNA evidence, including 88 percent of those convicted of rape. The cause of the wrongful convictions in nearly 90 percent of the rape cases was eyewitness misidentification, especially cross-racial misidentification involving a black defendant and a white victim. The main cause of the wrongful convictions in murder cases was perjury on the part of the real killers, supposed participants, or eyewitnesses to the crime; jailhouse snitches and other untrustworthy police informants; police officers; and state forensic scientists. Another major factor in wrongful murder convictions was false confessions. Juveniles (almost all of them were either black or Hispanic) and the mentally disabled were particularly vulnerable to false confessions. On average, exonerated defendants served more than 10 years in prison for crimes they did not commit.

The exonerations occurred in four ways: (1) In 77 percent of the cases, the courts dismissed criminal charges after new evidence of innocence was presented. (2) In about 13 percent of the cases, governors or other authorized executive officers issued pardons based on evidence of innocence. (3) In approximately 9 percent of the cases, defendants were acquitted at retrial after evidence was presented that they had no role in the crimes for which they were convicted. (4) Finally, in 1 percent of the cases, states posthumously admitted that defendants who had died in prison were innocent.

*Samuel R. Gross et al., "Exonerations in the United States, 1989 through 2003." 2004. http://www.internationaljusticeproject.org/pdfs/ExonerationReport4.19.04.pdf

"in the past five years, a person was executed who was, in fact, innocent of the crime with which he or she was charged" (Gallup 2009). That was down somewhat from 73 percent who so believed in 2003, according to Gallup. A Harris poll conducted in 2008 similarly found that up to 95 percent of adults nationwide thought that innocent people sometimes were wrongly convicted of murder—a statistic that has held remarkably steady since at least 1999 (Polling Report 2009).

Key Events

This remarkable turnaround in the public's belief about miscarriages of justice was the result of a combination of events. The most important arguably was the advent of DNA profiling. DNA evidence is now used to link or eliminate identified suspects to a crime, identify "cold hits" where a sample from a crime scene is matched against numerous cases in a DNA database and a positive match is made and to clear convicted rapists and murderers years after they began serving their sentences. A second important and related development was the establishment in 1992 of the Innocence Project by Law Professors Barry Scheck and Peter Neufeld at the Benjamin N. Cardozo School of Law in New York City. The project uses law students in a clinical law program to provide *pro bono* legal services to inmates who are challenging their convictions based on DNA evidence. The student lawyers are supervised by practicing attorneys. The project has represented or assisted more than 100 cases in the United States, including several death penalty cases, where convictions have been reversed or overturned. Today, there is a national network of more than 40 Innocence Projects throughout the United States. Scheck and his colleagues, underscoring the importance of DNA evidence, found that "of the first eighteen thousand results [of DNA tests] at the FBI and other crime laboratories, at least five thousand prime suspects were excluded *before* their cases were tried" (Scheck 2001, xx). That is, more than 25 percent of the prime suspects were wrongly accused.

Another development was additional revelations that people convicted of capital crimes and sentenced to die were actually innocent. In Illinois, investigations by Northwestern University journalism professor David Protess and his students provided proof of innocence. In 1998, Northwestern University hosted the first National Conference on Wrongful Convictions and the Death Penalty. Attending were 35 former death row inmates. Some of them told their stories about almost being executed and how they had been wrongly convicted. In 1999, the *Chicago Tribune* published two major series. The first series documented prosecutor misconduct throughout the United States; the second series examined problems with Illinois's capital punishment system that contributed to such a large percentage of its death row inmates being exonerated because of their innocence. Based largely on the series by the *Chicago Tribune* and the fact that Illinois had released 13 condemned inmates from death row since 1977 while executing 12, Republican Governor George Ryan, himself a proponent of the death penalty, imposed a moratorium on capital punishment in Illinois in January 2000. In May 2000, Governor Ryan charged a special commission he created with producing a comprehensive report on the administration of capital punishment in Illinois. In April 2002, Governor Ryan received the completed report, which contained 85 recommendations for changes in the Illinois capital punishment system. Declaring the Illinois capital punishment system to be broken, in January 2003, just days before he was to leave office, Governor Ryan pardoned four death-row inmates and commuted the sentences, mostly to life in

prison without possibility of parole, of the remaining 167 inmates on Illinois's death row. Between 1973 and November 2006, a total of 123 people in 25 states have been released from death row with evidence of their innocence (Death Penalty Information Center 2006). Some probably innocent death row inmates were not as lucky and have been executed (Bohm 2003).

Reasons and Remedies

The proximate reasons for these miscarriages of justice are now well documented. They include shoddy investigation and misconduct by the police; eyewitness misidentification, perjury by prosecution witnesses, false confessions, guilty pleas by innocent defendants, prosecutor misconduct, judicial misconduct or error, bad defense lawyers, and jury problems.

Remedies to miscarriages of justice are also well known. Among the recommendations are the following: provide good attorneys, punish the misconduct of defense attorneys, improve police investigations, interrogations, and the handling of evidence, improve eyewitness identification techniques and procedures, improve the work and credibility of crime lab technicians, require DNA testing, set rigorous standards for jailhouse snitches/informants, improve police training, punish police misconduct, guide prosecutors' charging decisions, improve disclosure requirements, punish prosecutor misconduct, provide better training and certification of trial judges in capital cases, give trial judges veto power in capital cases (when juries impose death sentences), eliminate time limits and other constraints on claims of actual innocence, increase the resources and scope of innocence projects, collect relevant data, establish innocence commissions, and provide assistance and indemnity.

Conclusion

The integrity and legitimacy of the criminal justice process depends largely on efforts to eliminate injustice. Miscarriages of justice threaten the very foundation of society. When criminal suspects and defendants are not treated fairly and accorded the rights guaranteed to them by the U.S. Constitution, the legitimacy and authority of the state are called into question. Citizens who lose faith in the state's ability to dispense justice are likely to employ vigilante justice, resulting in social chaos.

To move analysis of this subject forward, the federal and state governments should be required by statute to compile an annual miscarriage of justice registry, listing all known cases of miscarriages of justice and their causes. Such a registry would not only provide an indication of the problem's magnitude but it would also be an excellent resource to use in evaluating criminal justice administration. It could reveal what works well and what is in need of change. Also needed is theorizing and investigation of the more fundamental causes of miscarriages of justice as well as the political will, organizational commitment, and resources to implement and monitor the remedies.

See also **Death Penalty; DNA Usage in Criminal Justice; Eyewitness Identification; Police Corruption; Public Defender System; Three-Strikes Laws**

Further Reading

Black's Law Dictionary, 7th ed. St. Paul, MN: West Group, 2000.

Bohm, R. M., *Deathquest II: An Introduction to the Theory and Practice of Capital Punishment in the United States.* Cincinnati, OH: Anderson, 2003.

Cohen, Stanley, *The Wrong Men: America's Epidemic of Wrongful Death Row Convictions.* New York: Carroll & Graf, 2003.

Death Penalty Information Center, "Innocence." 2006. http://www.deathpenaltyinfo.org

Forst, Brian, *Errors of Justice: Nature, Sources, and Remedies.* New York: Cambridge University Press, 2004.

Gallup, "In U.S., Two-Thirds Continue to Support Death Penalty." October 13, 2009. http://www.gallup.com/poll/123638/in-u.s.-two-thirds-continue-support-death-penalty.aspx

Lytle, Leslie, *Execution's Doorstep: True Stories of the Innocent and Near Damned.* Boston: Northeastern University Press, 2008.

Polling Report, "Are you in favor of the death penalty for a person convicted of murder?" Gallup poll, Oct. 1–4, 2009. http://www.pollingreport.com/crime.htm

Robinson, Paul H., and Michael T. Cahill, *Law Without Justice: Why Criminal Law Doesn't Give People What They Deserve.* New York: Oxford University Press, 2006.

Scheck, Barry, P. Neufeld, and J. Dwyer, *Actual Innocence: When Justice Goes Wrong and How to Make It Right.* New York: Signet, 2001.

Westervelt, Saundra D., and John A. Humphrey, eds., *Wrongly Convicted: Perspectives on Failed Justice.* Newark, NJ: Rutgers University Press, 2001.

P

PATRIOT ACT

Cary Stacy Smith and Li-Ching Hung

On September 11, 2001, al Qaeda terrorists, wielding box cutters, skyjacked and then crashed jets into the World Trade Center and Pentagon. Exactly 45 days later, on October 26, 2001, President George W. Bush signed Public Law 107–56. The act's formal title is "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act"; however, it is better known as the USA Patriot Act, or simply "Patriot Act" (PA). Fifteen federal statutes were affected by the PA, some in major ways; that is, law-enforcement and intelligence personnel were provided with legal tools for fighting international and domestic terrorism. Once the PA was passed, the Bush administration and many others heralded it as a much-needed tool for combating terrorism and preventing future attacks on the United States. With the passing of time, however, critics of the PA have voiced concerns that the act violates basic constitutional guarantees of civil rights.

One major boon for authorities was how the PA streamlined the legal processes for obtaining authorization for surveillance on suspicious individuals as well as seizing money that may be used to support terrorism. The act also required financial institutions to report any suspicious activity, to effectively identify new customers, to sever all ties to fraudulent banks located in foreign countries, and to maintain anti–money laundering programs at all times. In addition, banks were encouraged to share information with federal, state, and local law enforcement agencies, while the federal government was empowered to confiscate the property of any individual or organization either performing

terrorist acts or who had plans to do so. The PA expanded the definitions of money laundering and fraudulent activities—such as those, involving American credit cards that fall under the definition of supporting terrorism (see also Smith and Messina 2004).

The PA also changed the various requirements needed for the issuance of search warrants. Prior to September 11, 2001 (9/11), local judges, or the Foreign Intelligence Surveillance Court (used only when foreign spying was suspected), issued warrants authorizing electronic surveillance, such as wiretaps. Before the PA was passed, foreign intelligence gathering had to be the sole reason (Smith and Messina 2004). After 9/11, any federal judge could issue a nationwide warrant to tap phones and e-mail or any instrument a suspect could conceivably use. Examples include (1) "sneak and peek" search warrants; (2) permitted delays in serving some warrants until seven days after the surveillance authorized by the warrants; and (3) the requirement that libraries, bookstores, and Internet service providers are required to supply information about how their clients use their various services. Regarding foreign suspects, federal agents could (until 2007, when the policy was revised) request authorization for "warrantless" searches when the gathering of foreign intelligence was thought significant reason for the searches.

Background

The PA was a compromise of the Anti-Terrorism Act of 2001 (ATA), a legislative package intended to strengthen the nation's defense against terrorism. The ATA contained provisions vastly expanding the authority of law enforcement and intelligence agencies to monitor private communications and access personal information. The final legislation

THE 10 TITLES OF THE PATRIOT ACT

The Patriot Act has 10 titles, each containing numerous sections. They are:

Title I: Enhancing domestic security against terrorism—deals with measures that counter terrorism.

Title II: Enhanced surveillance procedures—gives increased powers of surveillance to various government agencies and bodies. There are 25 sections in this title, with one of the sections (section 224) containing a sunset clause.

Title III: International money-laundering abatement and antiterrorist financing act of 2001.

Title IV: Protecting the border.

Title V: Removing obstacles to investigating terrorism.

Title VI: Providing for victims of terrorism, public safety officers, and their families.

Title VII: Increased information sharing for critical infrastructure protection.

Title VIII: Strengthening the criminal laws against terrorism.

Title IX: Improved intelligence.

Title X: Miscellaneous.

included a few beneficial additions from the administration's initial proposal. Examples are a sunset provision, which provided that several sections of the PA would automatically expire after a specified period of time unless Congress renewed them, concerns about aspects of the electronic surveillance provisions, and an amendment providing judicial oversight of law enforcement's use of the FBI's Carnivore system (a method of electronic surveillance). On the other hand, the PA still retained provisions expanding the government's investigative authority, especially with respect to the Internet. Those provisions address issues that are complex and implicate fundamental constitutional protections of individual liberty, including the appropriate procedures for interception of information transmitted over the Internet and other rapidly evolving technologies.

One primary purpose for the PA was stopping terrorists from staying within the United States. When reasonable grounds exist to believe that foreign visitors pose a threat to national security, they can be arrested and held for seven days without being charged, pending investigation or their deportation. Judicial review is nonexistent, except for habeas corpus, while the U.S. attorney general has the right to order aliens held indefinitely if no countries agree to accept them upon deportation (Brasch 2005).

The PA makes one liable for deportation, even if a person associates unknowingly with terrorists or terrorist organizations. In order to identify and track suspects, the act substantially increases rewards for information regarding terrorism, expands the exemptions to the Posse Comitatus Act of 1878, and gives the U.S. attorney general permission to collect samples of DNA from convicted federal prisoners. Domestic terrorism, a new category, is added; that is, an act intended to negatively influence governmental policy or to coerce civilians by intimidation committed by any citizen of the United States. Such acts, whether by citizens or foreigners, include attacking mass transportation, releasing biological agents, using weapons or explosives, spreading false information about terrorist attacks, or conspiring with terrorists (Etzioni 2004).

Legal Decisions

Congressman James F. Sensenbrenner introduced the Patriot Act into the House of Representatives as H.R. 3162. The act swept through Congress quickly with little dissent. House Resolution 3162 was introduced in the House of Representatives on October 23, 2001. Assistant Attorney General Viet D. Dinh and Michael Chertoff (future secretary of the Department of Homeland Security) were the primary drafters of the PA. The bill passed in the House of Representatives on October 24, 2001, as it did in the Senate (with one dissenter and one senator not voting) on October 25, 2001. President George W. Bush signed the bill into law on October 26, 2001 (Smith and Messina).

Quite possibly the single most controversial aspect of the act was Section 215, which dealt with a very narrow implied right of federal investigators to access library and bookstore records. The section allowed FBI agents to obtain a warrant *in camera* from the

THE PATRIOT ACT AND FOREIGN INTELLIGENCE

The act follows and amends a series of acts that are related to the investigations of foreign intelligence. These include:

1. The Foreign Intelligence Surveillance Act (FISA), which was passed in 1978 and defined who could be investigated; targets were usually engaged in espionage or international terrorism. In 2004, FISA was permitted to target "lone wolf" terrorists without showing that they were members of a terrorist group or agents of such a group or of any other foreign power.
2. The USA Act was passed on October 12, 2001, and subsequently folded into the USA Patriot Act. Under the USA Act, a terrorist who was not an agent of a foreign power could be the target of a federal investigation of foreign intelligence.
3. The Financial Anti-Terrorism Act was passed on October 17, 2001, and also folded into the USA Patriot Act. It increased the federal government's powers to investigate and prosecute the financial supporters of terrorism.

See also W. M. Brasch, *America's Unpatriotic Acts: The Federal Government's Violation of Constitutional and Civil Rights* (New York: Peter Lang, 2005).

United States Foreign Intelligence Surveillance Court for library or bookstore records of anyone connected to an investigation of international terrorism or spying. The section never specifically mentions and civil libertarians argued that the provision violated patrons' human rights; it has become known as the "library provision."

It is unknown how many individuals or organizations have been charged or convicted under the act. Throughout 2002 and 2003, the Justice Department adamantly refused to release numbers. John Ashcroft in his 2004 statement *The Department of Justice: Working to Keep America Safer* claimed that 368 individuals were criminally charged in terrorism investigations, although the numbers 372 and 375 were later used. Of these, he stated that 194 (later 195) resulted in convictions or guilty pleas. In June 2005, President Bush reported that investigations yielded over 400 charges against terrorists, with more than half resulting in convictions or guilty pleas. In some cases, federal prosecutors chose to charge suspects with nonterror-related crimes for immigration, fraud, and conspiracy (Smith and Messina 2004).

Members of the U.S. Congress from both sides of the aisle have tried to curb some of the act's policies. In 2003, Senators Lisa Murkowski (R-AK) and Ron Wyden (D-OR), introduced the Protecting the Rights of Individuals Act, which revised several provisions of the Patriot Act to increase judicial review. For example, instead of PEN/Trap warrants—a device used to collect all numbers dialed on a phone keypad after a call has been connected—based on the claims of law enforcement, rather, they would be based on "specific and articulable facts that reasonably indicate that a crime has been, is being,

or will be committed, and that information likely to be obtained by such installation and use is relevant to the investigation of that crime" (see also Cole and Dempsey 2002).

Congressman Bernie Sanders (I-VT) with Reps. Jerrold Nadler (D-NY), John Conyers Jr. (D-Mich.), C. L. Otter (R-Idaho), and Ron Paul (R-Texas) proposed an amendment to the Commerce, Justice, State Appropriations Bill of 2005 that would cut off funding to the Department of Justice for searches conducted under Section 215. The amendment initially failed to pass the House with a tie vote, 210–210. Although the original vote came down in favor of the amendment, the vote was held open and several house members were persuaded to change their votes (Cole and Dempsey 2002).

The courts have also spoken out against the act. U.S. District Judge Audrey Collins ruled that Section 805 (which classifies "expert advice or assistance" as material support to terrorism) was vague and in violation of the First and Fifth Amendments, marking the first legal decision to set a part of the act aside. The lawsuit against the act was brought by the Humanitarian Law Project, representing five organizations and two U.S. citizens who wanted to provide expert advice to Kurdish refugees in Turkey. Groups providing aid to these organizations had suspended their activities for fear of violating the act, and they filed a lawsuit against the Departments of Justice and State to challenge the law, claiming the phrase "expert advice or assistance" was too vague. Collins granted the plaintiff's motion that "expert advice or assistance" is impermissibly vague but denied a nationwide injunction against the provision. The plaintiffs were granted "enjoinment" from enforcement of the provision (Chesney 2005).

Conclusion

In terms of the act remaining as it was in 2001, when it was signed into law, the future looks dim. To date, eight states (Alaska, California, Colorado, Hawaii, Idaho, Maine, Montana, and Vermont) and hundreds of cities and counties (including New York City; Los Angeles; Dallas; Chicago; Eugene, Oregon; Philadelphia; and Cambridge, Massachusetts) have passed resolutions against the PA in its present form. In Arcata, California, an ordinance was passed that bars city employees (including police and librarians) from assisting or cooperating with any federal investigations under the act that would violate civil liberties. In addition, a group called The Bill of Rights Defense Committee helped coordinate local efforts to pass resolutions. The validity of these ordinances is in question, however, since under the Constitution's supremacy clause, federal law supersedes state and local laws. However, others have opined that the federal employees, in using such procedures for investigations, violate the Constitution's clauses in the fourth amendment, and in these cases, the Constitution overrides the act's provisions (Chesney 2005; Bill of Rights Defense Committee).

See also **Immigration and Employment Law Enforcement; Miranda Warnings; Racial, National Origin, and Religion Profiling; Search Warrants; Surveillance—Technological (vol. 4)**

AMERICAN FEELINGS ABOUT THE PATRIOT ACT

According to a USA Today/CNN poll, the percentage of Americans having negative feelings about the act has grown (see Table 1). Originally, the Patriot Act had a sunset clause to ensure that Congress would have to take active steps to reauthorize it. The United States had never enacted into law anything like this act; thus people needed time in which to gauge whether or not it needed modification. From the beginning, the primary criticisms leveled at the Patriot Act centered upon civil liberties. In 2006, the reauthorization resolution was passed and contained 27 safeguards designed for maintaining civil liberties.

The 27 safeguards are as follows:

Safeguard 1: requiring high-level approval and additional reporting to Congress for Section 215 requests for sensitive information such as library or medical records
Safeguard 2: statement of facts showing relevance to a terrorism or foreign spy investigation required for Section 215 requests
Safeguard 3: explicitly allowing a FISA court judge to deny or modify a Section 215 request
Safeguard 4: requiring minimization procedures to limit retention and dissemination of information obtained about U.S. persons from Section 215 requests
Safeguard 5: explicitly providing for a judicial challenge to a Section 215 order
Safeguard 6: explicitly clarifying that a recipient of a Section 215 order may disclose receipt to an attorney or others necessary to comply with or challenge the order
Safeguard 7: requiring public reporting of the number of Section 215 orders
Safeguard 8: requiring the Justice Department's independent inspector general to conduct an audit of each Justice Department use of Section 215 orders
Safeguard 9: explicitly providing for a judicial challenge to a National Security Letter (NSL)
Safeguard 10: explicitly clarifying that a recipient of a National Security Letter may disclose receipt to an attorney or others necessary to comply with or challenge the order
Safeguard 11: providing that a nondisclosure order does not automatically attach to a National Security Letter.
Safeguard 12: providing explicit judicial review of a nondisclosure requirement to a National Security Letter
Safeguard 13: requiring public reporting of the number of National Security Letters
Safeguard 14: requiring the Justice Department's independent inspector general to conduct two audits of the use of National Security Letters
Safeguard 15: requiring additional reporting to Congress by the Justice Department on use of National Security Letters
Safeguard 16: requiring the Justice Department to recertify that nondisclosure of a National Security Letter is necessary

Safeguard 17: narrowing the deference given to the Justice Department on a National Security Letter nondisclosure certification
Safeguard 18: requiring a report to Congress on any use of data-mining programs by the Justice Department
Safeguard 19: requiring notice be given on delayed-notice search warrants within 30 days of the search
Safeguard 20: limiting delayed-notice search warrants extensions to 90 days or less
Safeguard 21: requiring an updated showing of necessity in order to extend the delay of notice of a search warrant
Safeguard 22: requiring annual public reporting on the use of delayed-notice search warrants
Safeguard 23: requiring additional specificity from an applicant before roving surveillance may be authorized
Safeguard 24: requiring court notification within 10 days of conducting surveillance on a new facility using a "roving" wiretap
Safeguard 25: requiring ongoing FISA court notification of the total number of places or facilities under surveillance using a "roving" wiretap
Safeguard 26: requiring additional specificity in a FISA court judge's order authorizing a "roving" wiretap
Safeguard 27: providing a four-year sunset on FISA "roving" wiretaps

TABLE 1. Does the U.S. Patriot Act Go Too Far?

Date	Too Far	Not Too Far
August 25–August 26, 2003	22%	69%
November 10–November 12, 2003	22%	65%
February 16–February 17, 2004	26%	64%
April 13–April 16, 2005	45%	49%

Table Source: USA Today, USA Today/CNN/Gallup Poll Results (May 20, 2005), http://www.usatoday.com/news/polls/tables/live/2004–02–25-patriot-act-poll.htm

Further Reading

Abele, Robert P., *A User's Guide to the USA Patriot Act and Beyond.* Lanham, MD: University Press of America, 2005.

Bill of Rights Defense Committee, "Resolutions Passed and Efforts Underway by State." http://www.bordc.org/list.php?sortAlpha = 1

Brasch, Walter M., *America's Unpatriotic Acts: The Federal Government's Violation of Constitutional and Civil Rights.* New York: Peter Lang, 2005.

Chang, Nancy, *Silencing Political Dissent.* New York: Seven Stories Press, 2002.

Chesney, R. M., "The Sleeper Scenario: Terrorism Support Laws and the Demands of Prevention." *Harvard Journal on Legislation* 42, no. 1 (2005): 1–91.

Cole, D., and J. X. Dempsey, *Terrorism and the Constitution: Sacrificing Civil Liberties in the Name of National Security,* 2d ed. New York: Norton, 2002.

Etzioni, Amitai, *How Patriotic Is the Patriot Act?* New York: Routledge, 2004.

Foerstel, Herbert N., *The Patriot Act: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2008.

Goldberg, Danny, et al., *It's a Free Country: Personal Freedom in America after September 11.* New York: Nation Books, 2003.

Pious, Richard M., *The War on Terror and the Rule of Law.* Los Angeles: Roxbury, 2006.

Schulhofer, Stephen J., *Rethinking the Patriot Act: Keeping America Safe and Free.* New York: Century Foundation, 2005.

Smith, Norris, and Lynn M. Messina, *Homeland Security.* New York: H. W. Wilson, 2004.

POLICE BRUTALITY

Jessica S. Henry

Police brutality refers to the use of excessive force against a civilian. The controversies that surround the topic of police brutality relate to different definitions and expectations over what is meant by excessive force. Indeed, police officers are expressly authorized to use necessary, reasonable force to perform their duties. As Jerome Skolnick, an influential police scholar in the United States, underscores: "as long as members of society do not comply with the law and resist the police, force will remain an inevitable part of policing." (Skolnick and Fyfe 1993). Others would quickly point out that there is also a difference between legitimate or legal force and illegitimate or excessive force by the police. They would argue, too, that the use of force is not only a question of reacting to citizen violations of the law and resistance but may also involve an array of actions that do not lawfully conform to the spirit of the law. Police brutality might include, for example, the unlawful beating of a citizen by an officer under the cover of the law or the brutality of other citizens or fellow officers who unjustly harm others that is overlooked or even condoned. Thus, the issue of police brutality turns not simply on the presence of force but on its degree, kind, reasonableness, and even on omission.

Although police brutality may also be said to occur whenever the police use violent force that is excessive, some scholars have limited that definition to include excessive force that is conscious and deliberate, as compared with the good-faith mistake of an officer who uses unnecessary force in the face of an unexpected situation. In contrast, the Communications Assistance for Law Enforcement Act (CALEA) accreditation standard does not contemplate the intent of the officer. Rather, it permits officers to use "only the force necessary to accomplish lawful objectives" and describes excessive force as any level of force that is more than necessary.

Background

Modern police forces were established in the 1830s and 1840s and were marked primarily by corruption and inefficiency. Indeed, police agencies throughout the 1800s and early 1900s were as often involved in violence and crime as the alleged perpetrators of crime.

At the turn of the 19th century, police use of excessive force had a widespread and accepted place in law enforcement. In interrogating suspects, the police would routinely beat suspects with fists, blackjacks, and rubber hoses to extract information. These police "interrogations," otherwise known as the "third degree," were conducted in hot, tiny, overlit rooms.

USE OF FORCE

Every day, law enforcement officers face danger while carrying out their responsibilities. When dealing with a dangerous—or unpredictable—situation, police officers usually have very little time to assess and determine the proper response. In such situations, good training can enable the officer to react properly to the threat or possible threat and respond with the appropriate tactics to address the situation, possibly including some level of force, if necessary, given the circumstances.

The U.S. Commission on Civil Rights has stated that "in diffusing situations, apprehending alleged criminals, and protecting themselves and others, officers are legally entitled to use appropriate means, including force." In dozens of studies of police use of force there is no single, accepted definition among researchers, analysts, or the police. The International Association of Chiefs of Police (IACP), in its study *Police Use of Force in America 2001,* defined use of force as "the amount of effort required by police to compel compliance by an unwilling subject." The IACP also identified five components of force: physical, chemical, electronic, impact, and firearm. To some people, though, the mere presence of a police officer can be intimidating and seen as use of force.

The Bureau of Justice Statistics, in *Data Collection on Police Use of Force,* states that "the legal test of excessive force . . . is whether the police officer reasonably believed that such force was necessary to accomplish a legitimate police purpose." However, there are no universally accepted definitions of *reasonable* and *necessary* because the terms are subjective. A court in one jurisdiction may define *reasonable* or *necessary* differently than a court in a second jurisdiction. More to the point is an understanding of the improper use of force, which can be divided into two categories: "unnecessary" and "excessive." The unnecessary use of force would be the application of force where there is no justification for its use, while an excessive use of force would be the application of more force than required where use of force is necessary.

Source: "Use of Force." Cops: Community Oriented Policing Services (U.S. Department of Justice). 2010. www.cops.usdoj.gov/default.asp?Item=1374

In 1928, President Herbert Hoover established the Wickersham Commission, which was charged in part with examining law enforcement police practices. Finding widespread brutality and corruption, in 1931 the Wickersham Commission reported that torture was routinely employed by police officers against suspects to elicit confessions. In one infamous example of police excesses, the commission described a suspect who was held by the ankles out of a third-story window. It also identified rampant corruption within police departments nationwide and linked brutality to routine police practices. The Wickersham Report drew unprecedented attention to the issue of police brutality and coerced confessions.

As a result of the Wickersham Report, the use of the third degree became less common. It did not, unfortunately, eliminate the practice entirely. For instance, a 2006 report issued after a four-year, $6 million investigation revealed that, during the 1970s and 1980s, Chicago police officers, under the leadership of Commander Jon Burge, routinely used torture to elicit confessions from hundreds of suspects. The torture techniques employed by the police included the use of cattle prods placed against a suspect's genitals, the shoving of a loaded gun into a suspect's mouth, or the placement of a plastic typewriter cover over a suspect's head until he lost consciousness. Other suspects were beaten with fists, kicks, and telephone books. Nearly all the victims were people of color. Notwithstanding the public furor over the report, no state prosecutions were planned as of the time of this writing.

The use of the third degree was not the only technique highlighted by the Wickersham Report. Rather, that report brought to light the endemic and institutional nature of police brutality among police departments across the country. Many of the then-identified issues relating to police brutality continue today. In 1991, for instance, 60 years after the Wickersham Report, the Christopher Commission issued its report on the use of force by the Los Angeles police department. That report, which called for new standards of accountability, described a police department and culture where the use of excessive force, primarily against people of color, was not uncommon. Its conclusions and recommendations were eerily reminiscent of its predecessor report.

The Christopher Commission's conclusions again were echoed several years later. In 1998, Human Rights Watch issued a nearly 400-page report analyzing police brutality and accountability throughout the United States. It concluded that police brutality is endemic to police departments nationwide and that there are inadequate measures in place to address and correct the pervasiveness of the issue. Human Rights Watch also made a series of nonbinding recommendations to increase police accountability and transparency in police practices. Whether any of these recommendations will be implemented in a systemic manner remains to be seen.

Key Moments/Events

In the 20th and 21st centuries, the phrase "police brutality" became inextricably linked with the names of individuals such as Rodney King, Abner Louima, or Amadou Diallo.

So too, police brutality has been linked with some of this nation's worst public riots. The following discussion focuses on several high-profile instances of police brutality. It is not meant to be exhaustive but rather to highlight significant events that altered the nation's consciousness about police brutality.

Many of the worst riots or rebellions in the 20th century stemmed from allegations of police brutality. The damage from the riots in terms of loss of life and property destruction was massive, while the damage between the community and the police department in some cases has yet to be repaired.

For instance, on March 3, 1991, there were riots in Los Angeles in response to an infamous beating caught on videotape. Rodney King, an African American, was speeding on a Los Angeles freeway. After King refused to pull over for fear that his probation would be revoked, 11 police cars and a police helicopter gave chase. King subsequently refused to exit his car. Police officers forcibly dragged him from the car and shot him twice with a taser gun. Four officers beat him with a nightstick at least 56 times, while dozens of other officers stood by and watched. King suffered brain damage and 16 broken bones. An amateur photographer captured the entire incident on videotape, which was subsequently and repeatedly shown on television throughout the world. After a jury that did not include a single African American person acquitted the officers, five days of rioting erupted in the streets of Los Angeles.

A little more than a decade earlier, on December 17, 1979, Miami erupted in violence. According to police reports, Arthur McDuffie, an African American, made an obscene gesture to a police officer and sped away on his motorcycle. After a police chase through Miami's streets, which involved at least 12 police cars, McDuffie was captured and severely beaten by six white police officers. He died four days later. Although it was revealed at trial that the officers initially had lied about the source of McDuffie's injuries, an all-white jury acquitted the officers. After the verdict, Miami erupted in three days of racially charged rioting.

Of course, not all instances of police brutality result in rioting. Indeed, there was no rioting in response to one of the worst cases of brutality in recent years. On August 9, 1997, Haitian immigrant Abner Louima was arrested outside a Brooklyn nightclub after a fight in which he had not participated. At the 70th precinct in Brooklyn, several officers, including Justin Volpe, brutalized Louima. Volpe sodomized Louima by plunging a broomstick into his rectum and mouth while his hands were cuffed behind his back. Louima suffered extensive internal injuries and required several surgeries.

In another high-profile example of brutality, Johnny Gammage, an African American, was driving a luxury car when he was pulled over by the Pittsburgh police on October 12, 1995. Gammage exited his car carrying a cell phone, which officers claimed appeared to be a gun. Officers on the side of the road detained him, and he died there. The coroner identified the cause of death as suffocation caused by pressure on the back and neck. Although all three officers charged with involuntary manslaughter were

acquitted, Gammage's death led to an extensive Justice Department investigation into police practices in Pittsburgh.

Under strikingly similar circumstances, Amadou Diallo, a 22-year-old unarmed street vendor from Guinea, was mistakenly shot and killed by the police. As he stood in the doorway to his apartment on February 4, 1999, four police officers in plain clothes fired 41 shots, hitting him 19 times. The officers later claimed that he was drawing a gun when they opened fire. What the officers took for a gun was, in fact, his wallet. Although the four officers were acquitted after trial, which was moved from the Bronx to Albany, New York, the City of New York agreed to pay $3 million dollars to resolve the Diallo family's civil rights lawsuit.

Lawsuits and Other Remedies to Reduce Police Brutality

Lawsuits have proven to be one effective way of controlling police practices. The U.S. Department of Justice is empowered to bring suit against police departments under the 1994 Violent Crime Control Act. This act authorizes the Justice Department to sue police departments where there has been an alleged "pattern or practice" of abuse. The impact of these "pattern" suits has been dramatic. The Justice Department has sued and entered into consent decrees with numerous police departments: the New Jersey Police Department to limit its reliance on racial profiling in traffic stops; an Ohio police force to reduce its use of excessive force; the Pittsburgh police department to institute increased oversight and accountability; and the Los Angeles police department (LAPD) over the Rampart scandal, where, in August 2000, a federal judge ruled that the government's antiracketeering statute—known as the RICO Law, created to fight organized crime—could be used against the police. A court-appointed monitor works to ensure that the departments are in compliance with consent decrees. These pattern lawsuits have the potential to bring broad, sweeping change to police practices and reduce the use of excessive force.

Individual citizens who have been abused by the police can also sue police departments for monetary damages. The cost of these lawsuits can be significant. For instance, in the 1990s, the Detroit police department paid an average of $10 million dollars per year to resolve lawsuits arising from police misconduct. In response to these and other lawsuits, some police departments have taken steps to address and reduce police misconduct. For instance, the Los Angeles County Board of Supervisors arranged for a special counsel to investigate problems within the LAPD, recommend reforms, and ultimately reduce the cost of litigation.

Criminal prosecution is an additional legal avenue that can be used to deter police brutality. Prosecutors, however, traditionally have been reluctant to pursue criminal charges against individual police officers. This, in part, reflects the dependent relationship of prosecutors, who rely on the police to secure convictions and do not wish to damage these institutionalized relationships. Moreover, convictions against police officers

are difficult to obtain both because it is hard to prove beyond a reasonable doubt that an officer used excessive force with criminal intent and jurors tend to empathize with the police and therefore are reluctant to convict them of crime.

Criminal convictions against police officers are relatively rare, but they do occur. In the case of Abner Louima, for instance, Justin Volpe pled guilty to anally penetrating Louima with a broomstick and was sentenced to 30 years in federal prison. Charles Schwarz also went to trial in the Louima case. Although was initially convicted of obstruction of justice and was sentenced to 15 years federal imprisonment, his conviction was overturned by an appellate court. Schwarz finally pled guilty to perjury and was sentenced to five years' imprisonment. And the convictions of the remaining three police officers were overturned by a federal appeals court. Whether these types of convictions and their mixed results will deter other officers from brutality is not clear. In contrast, an acquittal often, albeit unintentionally, sends a public message that the police can "get away" with murder.

Another potential mechanism for controlling police brutality is through the use of civilian complaint boards. These boards may serve as independent reviewers of citizen complaints, aid in monitoring police departments, or help with policy review. Although many of these boards have been criticized for a wide range of reasons, they may aid in increasing the transparency of police departments, which in turn may improve public confidence in the complaint process. However, complaint review boards are only as effective as the mandate given to them by the community and the degree of cooperation demonstrated between the police, prosecutor, politicians, and review board.

Conclusion

Police brutality remains a challenge within law enforcement today. The frequency with which police brutality occurs may decline in the future, with effective mechanisms to ensure police accountability and a continued emphasis on police professionalism. Although isolated instances of police brutality may be unavoidable, a number of accountability measures can be implemented in an effort to reduce overall patterns of police brutality.

Police departments traditionally have turned inward in an effort to regulate the conduct of their officers. An internal affairs unit (IAU) is responsible for investigating allegations of misconduct and brutality. The "blue curtain" or the "blue wall of silence" refers to the informal code among police officers that constrains them from reporting the misdeeds of other officers. The refusal to "rat out" a fellow officer remains a cultural norm within police departments. Therefore there are significant cultural limitations to an IAU investigation. Moreover, the investigations conducted by IAUs are typically cloaked in secrecy. Thus it is extremely difficult to assess whether and to what extent police departments in fact are monitoring their operations.

There are, however, external methods of monitoring and curbing police brutality, as discussed in the previous section. These accountability measures together may begin to affect the national police culture in which brutality is accepted, overlooked, or ignored. Until measures such as these are implemented, however, the excessive use of force by individual police officers is unlikely to come to an end.

See also **Miscarriages of Justice; Police Corruption**

Further Reading

Alpert, Geoffrey P., and Roger G. Dunham, *Understanding Police Use of Force: Officers, Suspects, and Reciprocity.* Cambridge, UK: Cambridge University Press, 2004.

Chevigny, Paul, *Edge of the Knife: Police Violence in the Americas.* New York: New Press, 1995.

Holmes, Malcolm D., *Race and Police Brutality: Roots of an Urban Dilemma.* Albany: State University of New York Press, 2008.

Human Rights Watch, *Shielded from Justice: Police Brutality and Accountability in the United States.* New York: Human Rights Watch, 1998.

Nelson, Jill, *Police Brutality: An Anthology.* New York: Norton, 2001.

Skolnick, Jerome, and James J. Fyfe, *Above the Law: Police Practices and Procedures.* New York: Free Press/Macmillan, 1993.

Williams, Kristian, *Our Enemies in Blue: Police and Power in America,* rev. ed. Boston: South End Press, 2007.

POLICE CORRUPTION

Marilyn Corsianos

Although there is still some debate over the meaning of the term *police corruption,* the primary controversy has to do with how police corruption stemming from the abuse of police power or authority can be reduced. Since the beginning of formal policing in the 1800s, various groups have demanded more measures to identify and control police corruption and increase police accountability to members of the public. But, what exactly does *police corruption* refer to?

Some acts of police behavior are universally condemned. Others generate disagreement and debate and some police actions clearly violate laws, while yet others violate internal departmental policies. Herman Goldstein defines police corruption as "the misuse of authority by a police officer in a manner designed to produce personal gain for the officer or others" (1997). Similarly, Lawrence Sherman defines police corruption as "an illegal use of organizational power for personal gain" (Sherman 1974, 30).

By contrast, Robert H. Langworthy and Lawrence H. Travis III define police corruption as "the intentional misuse of police power. In practice, this definition means that

before something can be called police corruption, two things must be established. First, it must be shown that police powers were misused. Second, it must also be shown that the officer(s) misusing police power intended to misuse it. Whether the motive is money, personal gain, or gain for self or others is not important except insofar as it helps to show intentional misuse of power" (Langworthy and Travis 2003, 414).

It is difficult if not impossible to know the extent of police corruption beyond the reported cases. The victims of police corruption typically report these cases to police authorities. Police officers who participate in acts of corruption have no incentives to report their own corrupt activities and risk losing their jobs and/or facing prosecution in criminal courts. Also, officers who witness acts of police corruption usually have no incentive to come forward and report the misconduct by their fellow officers. As accepted members of the police culture, they are expected to respect the police occupational culture and code of silence.

Moreover, citizens who willingly engaged in acts of corruption with the police have no motive to report their own involvement or that of the officer. In addition, citizens who were less willing participants in the corruption (e.g., citizens who accept an officer's proposal to pay him or her a fee in exchange for not receiving a citation), or citizens who observe a corrupt transaction may decide not to report these incidents because they are either fearful of retribution or believe that the police will not bother with an investigation. Furthermore, only a handful of sociological or criminological studies have been done on police corruption, and they are typically case studies that look at one or a few police agencies.

Findings from case studies often present difficulties in making generalizations from one police department to the next. For obvious reasons, many academics encounter difficulties in gaining access to police agencies and finding a sample of officers willing to participate in a study of police corruption. Researchers who have been successful in conducting such studies have often spent significant time with particular officers, establishing themselves as trustworthy researchers.

Background

Evidence of police corruption in the United States can be traced back to the beginnings of formal police organizations in the 1800s. From the mid-1800s to the early 1900s, the police were appointed by elected political officials who expected police to respond to a variety of neighborhood demands in order to ensure votes during the next election. In addition, officers were selected from the neighborhoods they would serve in order to reflect the interests of the neighborhood residents (Walker 1977). Police officers had to answer to political leaders and to the individual neighborhoods they served (Kelling and Moore 1988). This meant that they operated differently throughout the different neighborhoods, which led to a great deal of controversy regarding police accountability and police roles (Conley 1995).

Police discretion was not monitored. The police had the power to arrest on suspicion and could apply physical force to members of the public (Miller 1977). Evidence suggests that during elections, some officers prevented supporters of opposing parties from casting their ballots using intimidation, arrest, and/or physical force. Police officers also protected the illegal operations of political leaders and/or accepted bribes by owners of illegal operations (Fogelson 1977). Police corruption was commonplace, given the lack of controls on police and their close relationship to politicians and neighborhoods.

By the early 1900s, citizens began to demand reform and accountability. People demanded that the police become a legitimate profession by separating the police from politics, create rules to guide police behavior, distance the police from the communities they were expected to serve, hire police based on qualifications and not political connections, and require special training and skills to fulfill police roles. But despite these accomplishments, along with more recent changes in community policing/community problem solving initiatives, police corruption has not been eliminated.

Different levels of police corruption may be found within police organizations today. They include police agencies where only a few officers participate in corrupt practices as well as agencies with departments where the majority of officers engage in corruption but do so independently, and agencies where corruption is organized and shared among most of the members of the department (Sherman 1974).

Moreover, scholars have identified different types of police corruption (Inciardi 1987). Examples of police corruption vary depending on the definition of police corruption used (Stoddard 1979). For instance, some scholars identify the acceptance of free or discount merchandise or services by officers as a form of police corruption. However, if merchants offer the discounts without any police influence or abuse of power, this particular act is not necessarily a corrupt practice.

Key Events

Recent highly publicized cases show the public that police corruption continues to exist, and they provide citizens with information on how they occur (Corsianos 2003). The cases that often receive a lot of publicity are those that involve excessive use of force, which includes deadly force, by police officers. Deadly force by the police results in an average of 373 civilian deaths each year. The majority of those killed by the police are young and male and a disproportionate number are African American (Brown and Langan 2001). The following is a list of some key incidents of excessive use of force applied by the police as well as incidents involving other types of police corruption.

2005–2010: In New Orleans, six unarmed people were shot by police on the Danziger Bridge while riding out the floodwaters of Hurricane Katrina (2005); two of them died. Another officer, Lt. Michael Lohman, arrived later at the scene and colluded with the officers present in creating a story about having been

COMMISSIONS' FINDINGS

The Knapp Commission

It was the Knapp Commission in 1972 that first brought attention to the New York Police Department (NYPD) when the commission released the results of more than two years of investigations into allegations of corruption. In 1970, NYPD officer Frank Serpico went public on the widespread corruption within the police agency. New York City Mayor John Lindsay established the Knapp Commission to investigate the allegations. The commission found widespread corruption such as bribery, especially amongst narcotics officers. As a result, many officers were prosecuted and many more lost their jobs. The commission's findings led to the following recommendations: (1) commanders should be held accountable for their subordinates' actions; (2) commanders should file periodic reports on areas that would breed corruption; (3) field offices of the Internal Affairs Division should be created at all precincts; and (4) undercover informants should be placed in all precincts. A massive restructuring took place and strict rules and regulations were implemented to ensure that this level of police corruption would never happen again.

The Mollen Commission

Many of the Knapp Commission's issues of concern resurfaced again in the early 1990s, as a new corruption scandal emerged. Several officers were accused of selling drugs and assaulting suspects. Mayor David Dinkins appointed a commission in 1992, headed by Judge Milton Mollen, to investigate the allegations. The Mollen Commission report, published in July 1994, described an internal accountability system that was flawed in most respects and discussed the relationship between corruption and brutality. The report read, "Today's corruption is not the corruption of Knapp Commission days. Corruption then was largely a corruption of accommodation, of criminals and police officers giving and taking bribes, buying and selling protection. Corruption was, in its essence, consensual. Today's corruption is characterized by brutality, theft, abuse of authority and active police criminality."

The commission evaluated the department's procedures for preventing and detecting that corruption and recommended changes and improvements to those procedures. Some of the recommendations included improving recruitment and applicant screening, officer performance evaluations, police management, enforcement of command accountability and internal affairs operations, and creating and/or improving integrity training, drug testing, and corruption screening. Also, the Commission to Combat Police Corruption (CCPC) was created in 1995 based upon the recommendations of the Mollen Commission. The Mollen Commission believed that the creation of an independent commission to monitor the anti-corruption activities of the police department would help stop the recurring cycles of corruption.

The Christopher Commission

In 1991, Rodney King, an African American, was struck 56 times with batons by Los Angeles police officers after being stopped by police following a car chase. After the King incident, a commission headed by former Secretary of State Warren Christopher was created

(*continued*)

(*continued*)

to conduct an examination of the structure and operation of the Los Angeles Police Department (LAPD). The commission looked at the recruitment and training practices, internal disciplinary system, and citizen complaint system. In addition, they reviewed a five-year period of internal use of force reports, Mobile Digital Terminal (MDT) transmissions between police cars and police stations, and 83 civil damages cases involving excessive force settled by the city attorney for more than $15,000. The commission also held hearings and interviewed numerous officials and residents.

The commission's report was released in July 1991, and it concluded that racism and sexism were widespread and that a significant number of LAPD officers repetitively used excessive force against the public. The commission also criticized management for their lack of leadership and for failing to control these officers. They also noted that the department often rewarded the problem group of officers with positive evaluations and promotions.

The Christopher Commission made several recommendations to identify, control, and reduce police corruption.

fired on by the victims. They planted a gun on the bridge to bolster their story, and Lohman altered the police reports. A state investigation was launched in 2006 but went nowhere. Federal investigators launched their own inquiry in 2009, bringing charges of a cover up in April 2010.

1999: Amadou Diallo, an African immigrant with no criminal record, was shot and killed by the police. Four New York City police officers fired 41 shots, claiming that Diallo looked suspicious, ignored their commands, and reached for a gun. Diallo, however, was unarmed and was reaching for his wallet when he was shot and killed.

1997: Abner Louima was sodomized with a plunger by a New York City police officer and then the plunger was shoved into his mouth, breaking his front teeth. This act was committed at a police precinct in the presence of several officers, but no one came forward to report the assault. Given the extent of Louima's injuries, he was taken to a hospital where details of the assault were made public.

1997: Six former law officers from Texas were indicted on drug trafficking and corruption charges for smuggling more than 1,700 pounds of marijuana into the country.

1995: The FBI began investigating police corruption charges involving Philadelphia's 39th District. The case concerned a cadre of officers who raided crack houses, shook down drug dealers, and generally trampled on individual rights in order to obtain convictions. By the end of the investigation in 1997, about 100 cases had been overturned.

1994: Hidalgo County Sheriff Brig Marmolejo Jr. was sentenced to seven years in federal prison for taking $151,000 in bribes to allow a drug trafficker to have special privileges in jail.

TYPES OF CORRUPT ACTIVITIES

1. The demand by officers that citizens buy police merchandise in which officers use threats of citation or arrest to make the sale
2. The acceptance of cash or gifts by officers, in exchange for ignoring some violation on the part of the citizen
3. Lying as a witness to cover up the actions of oneself or another officer
4. The taking of cash or expensive items for personal use from a crime scene/call
5. The use of race as a key factor in police decisions to stop and interrogate citizens (referred to as racial profiling, race-based policing, or race-biased policing)
6. A planned burglary or theft by officers while on duty
7. The use of excessive force (e.g., assault, deadly force) by officers on members of the public

1992: Malice Green was pulled from his car by Detroit police officers and beaten to death.

1992–1999: LAPD officers working for the prestigious antigang unit CRASH, in the Rampart Division, were found to be responsible for numerous corrupt activities involving physical beatings, shootings, planting of evidence, falsifying police reports, and falsifying evidence and testimony about their actions in court.

Conclusion

The debate continues on how to limit police abuse of powers and more specifically police corruption. Various groups have demanded stricter measures to identify police corruption, control police behavior, and increase accountability (Walker 2005). Some suggestions include the following:

1. Create open and accessible citizen complaint procedures

Citizens should be given detailed information on how to file a complaint against a police officer. The process should be explained to the public and a time frame should be provided. Police Web sites should post information on the complaint process and citizens should be informed via community newsletters and the police working at various precincts.

2. Create external citizen oversight/complaints agencies

These agencies consist of official panels of citizens who investigate complaints of police misconduct and police corruption. Police departments should be expected to cooperate with these agencies by law and turn over all documents relating to the alleged act or acts of police corruption and should have access to locating and interviewing witnesses and the police officers.

3. Create official corruption units

Official corruption units (similar to the one created in New York City in the early 1990s) should consist of a combination of prosecutors, investigators, and paralegals. Such a unit should work in conjunction with the district attorney's office and should be authorized to investigate the corruption of any public official including police officers and maintain a relationship with police departments' internal affairs bureaus. Upon discovering evidence of police corruption, they should attempt to discover the extent of the corruption within particular units and/or the entire organization by turning corrupt police into undercover "spies" in order to collect evidence as to the extent of corruption and use them in courtroom prosecutions.

4. Create early intervention computerized databases

These databases should be used to collect detailed information on police behavior and practices (e.g., the number of vehicles they stop, the race and sex of the citizens they stop to question, the number of complaints made against them, the nature of the complaints, etc.). This information should be monitored and evaluated internally for any possible patterns of misconduct by police.

5. Demand more accountability on the part of elected officials who can influence police actions through their control over police budgets and the tenure of police administrators

In recent years, citizen complaints about the police practice of racial profiling has led to the passage of legislation mandating that police agencies keep statistics on the race of citizens stopped and questioned by police for traffic violations.

6. Create professionalism within the police and eliminate the "blue code of silence"

Police departments should become more selective in the hiring process and have a preference for applicants with college degrees. In addition, better training should be offered to new recruits. Focus should be given to classes on professionalism, conflict resolution, race relations, gender relations, police accountability, and integrity. Officers with better education and better training will be less likely to participate in police corruption and will be more likely to come forward and report such cases.

See also **Miscarriages of Justice; Police Brutality; Racial, National Origin, and Religion Profiling**

Further Reading

Brown, J. and P. Langan, *Policing and Homicide, 1976–1998: Justifiable Homicide by Police, Police Officers Murdered by Felons.* Washington, DC: Bureau of Justice Statistics, 2001.

Burris, John L., and Catherine Whitney, *Blue vs. Black: Let's End the Conflict between Cops and Minorities.* New York: St. Martin's Griffin, 1999.

Conley, J. A., "The Police in Urban America, 1860–1920." In *The Encyclopedia of Police Science,* 2d ed., ed. W. G. Bailey. New York: Garland, 1995.

Corsianos, Marilyn, "Discretion in Detectives' Decision Making and 'High Profile' Cases." *Police Practice and Research: An International Journal* 4, no. 3 (2003): 301–314.

Fogelson, R. M., *Big-City Police.* Cambridge, MA: Harvard University Press, 1977.

Goldstein, H., *Policing a Free Society.* Cambridge, MA: Ballinger, 1977.

Inciardi, J., *Criminal Justice,* 2d ed. New York: Harcourt Brace Jovanovich, 1987.

Ivkovic, Sanja Kutnjak, *Fallen Blue Knights: Controlling Police Corruption.* New York: Oxford University Press, 2005.

Kelling, G. L., and M. H. Moore, *The Evolving Strategy of Policing.* Washington, DC: U.S. Department of Justice, 1988.

Langworthy, Robert H., and Lawrence F. Travis III, *Policing in America: A Balance of Forces,* 3d ed. Upper Saddle River, NJ: Prentice Hall, 2003.

Levitt, Leonard, *NYPD Confidential: Power and Corruption in the Country's Greatest Police Force.* New York: Thomas Dunne Books, 2009.

Miller, W. R., *Cops and Bobbies: Police Authority in New York and London, 1830–1870.* Chicago: University of Chicago Press, 1977.

Prenzler, Tim, *Police Corruption: Preventing Misconduct and Maintaining Integrity.* Boca Raton, FL: CRC Press, 2009.

Roberg, Roy, Kenneth Novack, and Gary Cordner, *Police and Society.* New York: Oxford University Press, 2008.

Sherman, L., ed., *Police Corruption: A Sociological Perspective.* Garden City, NY: Anchor, 1974.

Stoddard, E., "Organizational Norms and Police Discretion: An Observational Study of Police Work with Traffic Violators." *Criminology* 17, no. 2 (1979): 159–171.

Walker, Samuel, *A Critical History of Police Reform: The Emergence of Police Professionalism.* Lexington, MA: Lexington Books, 1977.

Walker, Samuel, *The New World of Police Accountability.* Thousand Oaks, CA: Sage, 2005.

Weitzer, Ronald John, and Steven A. Tuch, *Race and Policing in America: Conflict and Reform.* New York: Cambridge University Press, 2006.

Williams, Kristian, *Our Enemies in Blue: Police and Power in America.* Cambridge, MA: South End Press, 2007.

Withrow, Brian L., *Racial Profiling: From Rhetoric to Reason.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

PRISON CONSTRUCTION

Byron E. Price

Because the United States has the largest prison population and the highest rate of incarceration in the world, the expansion of its capacity to hold more prisoners is a very contentious one. Perhaps the most controversial question revolves around whether or not U.S. correctional policy should be in the business of building new prisons or whether

it should be finding alternatives to imprisonment. These debates or questions, of course, raise related issues that include but are not limited to: punishment versus rehabilitation, privatization versus antiprivatization, and the abolition of parole and probation versus a moratorium on new prison construction.

Background

In the 1990s, in an effort to keep pace with a marked increase in the prison population, prison construction likewise rose to unprecedented levels (Martin and Myers 2005). The additional prison boom coupled with the public's disgust with rehabilitation efforts fueled the imprisonment boom, which led to more prison construction, especially between 1990 and 1995. During this time period, 213 new prisons were constructed nationwide (Martin and Myers 2005). During the 1990s, corporations saw the growth of prisons as an economic opportunity and several of them entered the prison construction business. The main two corporations were Corrections Corporation of American (CCA) and the Geo Group—formerly known as Wackenhut (see CCA's and the Geo Group's Web sites, respectively http://www.correctionscorp.com/ and http://www.thegeogroupinc.com/). These corporations changed the way prisons were built. They built speculative prisons (Collins 1998); that is, they built prisons without the state's involvement. They were able to seek financing from Wall Street investment firms such as E. F. Hutton to finance this speculative construction and sidestep the need to float taxpayer-supported bonds, the traditional method of financing new prison construction (Price 2006a). With the advent of prisons for profit, prison construction has become a lucrative industry, and this has led to more punitive laws and more lobbying for laws that increase the prison population.

Legal Decisions

Since 1965, lawsuits charging that overcrowding in prisons constitutes a form of cruel and unusual punishment, and is therefore a violation of prisoners' civil rights, have been brought in virtually every state (Levit 1996). As overcrowding of prisons has continued to swell, most federal, state, and local offici
als have recognized the need to delegate correctional responsibilities to nongovernmental organizations (Segal 2002).

Federal regulations govern this policy and can be found in 18 U.S.C. Sec. 4082(b), which "remands all federal offenders to confinement in any available, suitable, and appropriate institution or facility, whether maintained by the Federal Government or otherwise" (Segal 2002). Prison conditions and prison overcrowding resulted in other class action suits, such as those brought in *Mattison v. South Carolina Department of Corrections*—filed in 1976, consent decree signed in 1978; and in *Nelson v. Leeke*—filed in 1982, decree signed in 1985. Based on the successful argument made by these parties, the South Carolina Department of Corrections agreed to work to eliminate overcrowding

by raising staffing levels, upgrading facilities, and making other administrative changes. Following the agreement, five new prisons were built and a number of other units were refurbished (South Carolina Department of Corrections 2007).

Lawsuits have been brought against states across the United States by various plaintiffs charging cruel and unusual punishment as the basis for grievances concerning prison overcrowding. (AELE Law Enforcement Legal Center 2010). Because of the lawsuits brought by various prisoners, courts passed laws mandating that states address their prison crowding problems. Courts also passed enabling legislation that made way for states to privatize prisons and authorize more prison construction. The legal challenges to prison overcrowding enhance the arguments of those critics who oppose the punitive model, which calls for mass incarceration as opposed to rehabilitation. The challenges and lawsuits reinforce their position; they argue that too much emphasis is being placed on incarceration and building more prisons. Instead they assert that states should reform laws that increase the prison population and direct that money away from prison construction into educational programs. Prisons have become such a profitable industry that corporations owning prisons make billions of dollars off prisoners' labor and the per diem the states pay them to house prisoners. Detractors of prison building assert that the laws are driving the legal challenges and more thought should be given to policy that diverts money from education to correction. Proponents of for-profit prisons ask: What is wrong with inmates working and picking up a trade they can use upon release from prison? Critics respond that prisoners are paid slave wages while corporations make millions of dollars in profits.

Controversies in Prison Construction

The major challenge for policy makers responsible for setting correctional policy center around four competing and contentious issues that will affect the future of prison construction in the United States. The first challenge for policy makers is to determine which option is more feasible, building new prisons or seeking alternative methods to incarceration. Because of the "the get tough on crime" and "war on drugs" campaigns, coupled with an increasing trend of politicians running on get-tough platforms, the current climate appears to be in support of building more prisons (although recent economic conditions have produced something of a dampening effect). Have these campaigns been successful in deterring crime? The jury is still out, but both campaigns (the war on drugs and getting tough on crime) have been successful in adding to the growth of the U.S. prison population. The question is at what cost? If these campaigns are deemed successful, then the policy of punishment first may become the status quo, critics fear.

The debate about punishment versus rehabilitation is the second major challenge that will affect future prison construction. Advocates of punishment applaud the current policy to incarcerate and incapacitate for longer periods of time. They assert that these people are criminals and should be locked up, and why should society care about citizens

who disobey the law? Since rehabilitation does not work, and if private prisons will help us keep them locked up, then private prisons should be welcomed. On the other hand, proponents of rehabilitation and alternative methods to incarceration contend that resources should be directed into diversion programs and not prison development. The United States incarcerates 500,000 more people than China, although China has five times our population, and private prisons would only expand this number.

Whether to privatize prisons or not is the third major controversy and challenge for policy makers concerned with the growth of prisons. The debate rages on but has taken on added impetus with the introduction of private probation and private prisons. Private prisons present a challenge to policy makers because supporters of private prisons and probation are perceived as having a vested interest in the business of incarceration. Other scholars contend that this is not the case; governments cannot continue to spend exorbitant amounts on prison construction. As long as private prisons are monitored, there should not be a problem. Furthermore, because of various mandatory sentencing laws (e.g., truth-in-sentencing and three-strikes laws) and the imprisonment boom they have generated, privatization is a reasonable alternative, particularly considering the dire straits that many state budgets are in. Yet opponents of prison privatization contend that the new prison construction is being fueled by for-profit prison corporations lobbying and writing laws via the Criminal Justice Task Force committee of the American Legislative Exchange Council—a nonprofit private conservative organization based in Washington, D.C., that writes model privatization and criminal justice legislation. They point to the chart in Table 1 as proof of why for-profit prisons are driving the prison construction boom.

The table shows the number of states passing laws that drive up the prison population and create the need for new prison construction as a result of lobbying. Lobbying for laws favorable to its industry is unethical, and creating a need for new prison construction is unconscionable, commentators contend, and that is why private corporations should not be in the business of incarceration. Also, the opponents of prison privatization maintain that a decreasing crime rate is bad for business for prison corporations and that is why they lobby for laws favorable to their industry.

One of the major issues of prison construction is location, or siting. As the rate of prison construction has risen, so too has the importance of debates concerning siting (Martin 2000; Abrams 1992; Shichor 1992). Although there are concerns in respect to siting a prison, especially as it involves the impact on those communities, in some circles the perceived economic development benefits trump the concerns concomitant with siting prisons. An adverse aspect of prison siting for economic development purposes is that prison construction leads to a modest population loss in many urban communities as urban prisoners are exported outside their communities to rural communities (where prisons are often the largest employers). Because of a quirk in the census, which often counts prisoners in the communities where they are housed

TABLE 1. Impact of For-Profit Prison Lobbying

Legislation	Number of Enactments	States
Truth in Sentencing Act (inmates serve at least 85 percent of their sentences)	25	Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Louisiana, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nevada, New Hampshire, North Carolina, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia, Wyoming
Habitual offender/three strikes (life imprisonment for a third violent felony)	11	Arkansas, Florida, Indiana, Montana, New Jersey, North Carolina, South Carolina, Tennessee, Vermont, Wyoming
Private correctional facilities	4	Arkansas, Connecticut, Mississippi, Virginia
Prison industries (requires prisoners to work for private companies)	1	Mississippi

(a policy that changed in many districts for the 2010 census), urban communities historically have lost political and economic clout to the communities where prisoners are shipped. This is one of the main objections to siting prisons for economic development purposes. If the practice does continue in selected districts, then the way the census counts prisoners should be adjusted.

The impetus for the prison construction boom is fueled by the ever-expanding prison population (Lawrence and Travis 2004) and the economic development needs of many rural white communities, critics argue. As prison populations continue to spiral out of control and the willingness of states to build more correctional facilities has not abated, many states and federal agencies are having a difficult time housing prisoners because they are running out of space and prisons are usually overcrowded.

For-profit prison corporations have stepped in to attempt to relieve the overcrowding problems, but they create a need for more prisons with their lobbying efforts and vested interest in the business of incarceration, critics argue. On the other hand, proponents of privatization contend that they are only responding to states' calls for relief as a result of court orders imposed on states to address their overcrowding problems. A benefit of private prison construction is that they can finance construction through lease contracts and lease purchasing agreements versus the traditional way states pay for

prison construction, such as "financing construction by cash appropriations (the pay-as-you-go approach) or by issuing general obligation bonds. The former puts the whole financial burden of construction on the state's annual budget. Bonds create problems by requiring voter approval and are restricted by debt limitations (Joel 1998). Critics of for-profit prison construction contend that the taxpayers should determine if they want more prisons versus having private entities determine policy, especially those with a vested interest in new construction. They also want to know whether, once the prisons are financed by for-profit prison corporations, the corporations are accountable to the citizens or to their stockholders. Corporations consider this argument nonsense. They cite competition as the reason why it behooves them to deliver quality service. If they fail to deliver quality service, they assert, they lose money and their competitors can step in and take control of their business.

The final challenge for policy makers is the debate surrounding the abolition of parole and probation versus a moratorium on new prison construction. It is argued that parole and probation must be abolished because they do not work and are too costly. If there were enough prisons, there would be no need to worry about probation and parole because there would be enough space to house prisoners eligible for parole and probation. Moreover, because rehabilitation appears to be a dismal failure, more prisons and laws are needed to incapacitate criminals, according to lobbyists and other advocates of prison construction.

On the other hand, critics of the punishment-first mentality also take issue with the idea of abolishing parole and probation—which is favored by today's correctional culture. They contend that the emphasis should be on rehabilitation and providing a second chance to those who have made mistakes, not on expanding the prison population and new prison construction. Additionally, citizens for criminal justice reform insist that the get-tough-on-crime tactics and punitive philosophy that permeate American society diverts the United States from rehabilitation and creates problems for the future. They ask why we have become a society that does not provide a second chance to those who may have had a momentary had a lapse in judgment. This group factors in structural impediments to human development such as racism, and how racism has handicapped certain minority groups who are disproportionately affected by incarceration and the pursuit of prisons as an economic development apparatus. As a result of their advocacy, states like Illinois are emphasizing rehabilitation as a solution to the high number of repeat offenders and costly jails (Paulson 2006). These groups point out the fact that if federal parole is reinstated it will reduce the costs of the federal prison system by reducing the need to undertake new prison construction. They maintain that "the entire, current budget…earmarked for new prison construction can be eliminated" (Armsbury 2005). Additionally, the argument is made that not enough money is spent on education, treatment, and job training in prison; as a result, prisoners are not equipped to return to society, which heightens the likelihood of recidivism.

PRIVATE PRISON COMPANIES

Private prison companies increase profits in several ways. Known as an economy of scale, the company is paid based on the number of inmates housed. In this case, much like a hotel, there is pressure to fill every available bed every night. To fill the prisons, companies contract with other states and transport inmates to facilities that are not full. In addition, the lower the level of security provided, the lower the cost to the company. The results can sometimes be disastrous for inmates, staff, and communities alike.

For example, in 1997, under pressure to fill empty beds at the medium-level security Northeast Ohio Correctional Center, the Corrections Corporation of America (CCA), under contract with the state, imported maximum-security-level inmates from Washington, D.C. Within one year, 20 stabbings and 6 escapes occurred. Empty prison beds in private facilities, depending on the contract, can also increase private prison profits. In this situation the state guarantees the company that it will pay as if 95 percent of the beds were full—even if they are empty. For instance, in 2001, Mississippi legislators diverted $6 million to pay for nonexistent "ghost inmates" after the CCA threatened to close down its Tallahatchie facility. In a publicly run facility, empty prison beds result in cost savings to taxpayers.

Another way prison companies increase profit is to cut costs, which often results in decreased quality of services and increased costs to taxpayers. The potential areas for cost cutting include but are not limited to inmate transportation, guard training/pay, and medical care, all of which can adversely affect the safety and security of inmates, guards, and citizens. For example, over a three-year time period, 21 violent prisoners escaped during transport by private companies. Training for corrections officers in state-operated facilities averages 12 to 16 weeks, while private companies offer an average of 3 weeks of training. Following the escapes and murders at the Northeast Ohio Correctional Center, an investigation reported that staff and officers, including supervisors, were inexperienced and undertrained. In the privately run Santa Fe Detention Center (New Mexico) alone, an investigative team found more than 20 cases in which inmates died as a result of negligence, indifference, inadequate training, or overzealous cost cutting.

—Donna Selman-Killingbeck

On the other hand, detractors of rehabilitation policy point out that those inmates should not receive a free college education, because citizens who have never been incarcerated cannot get a college degree for free. The rejoinder to this comment by advocates of rehabilitation as opposed to incarceration is: What person in his or her right mind would go to prison for a free college education? The reason prisons continue to expand is because of the move away from restorative justice policy, which advocates that everyone needs a second chance. The Second Chance Act, geared toward helping ex-offenders reintegrate into society, focuses on jobs, housing, mental health, substance abuse, and strengthening families; it is the kind of effort that should be undertaken, proponents of restorative justice assert. FedCURE is also a policy the government should pursue

because it would reinstitute the old parole and good time laws, which would allow inmates to be paroled at the federal level. (Congress abolished parole in the Comprehensive Crime Control Act of 1984.) However, federal prisoners may earn a maximum of 54 days of good-time credit per year against their sentences.

Critics of alternative methods to incarceration reply that people who commit crimes should not be rewarded for good behavior while incarcerated for crimes they have committed against society. Proponents of rehabilitation ask: Where is the compassion? They pose this question to policy makers with a predilection for punishment, because research shows that the majority of prisoners are nonviolent drug offenders. Furthermore, they note that at least one past president, George W. Bush, was in his youth a nonviolent drug offender who received a second chance. What if he had not benefited from an alternative method of incarceration? They cite many other individual cases as examples of why alternative methods to incarceration should be considered for nonviolent offenders.

Another controversy surrounding the abolition of parole and probation is the idea of privatized probation. Because parole and probation are considered to be too costly, proponents of privatized probation contend that if states are unwilling to abolish probation and parole, they should privatize them. This would help manage the crimes that are being committed by probationers and parolees who should have never been released or pardoned in the first place. Because people who have been paroled and placed on probation keep committing crimes, they drive the need for more prison construction and more police officers. However, advocates of "lock them up and throw away the key" happily report that the tactic of being tough on crime has reduced violent crime—thus a justification for more prisons.

Enough is enough, opponents of incarceration argue. They aver that the United States has locked up more people than any other country and that it leads the world in incarceration. They are initiating a campaign for a moratorium on prisons. Advocates of this movement maintain that states can save money by using funds to actively pursue alternatives to imprisonment for as many people as possible. They also point out that according to the Bureau of Justice Statistics, it costs about $25,000 per year to incarcerate each of the 2.2 million people in the U.S. prisons. This costs as much as annual tuition at a good college, they contend. Proponents of increased use of imprisonment purport that prisons are a necessary evil in our society. Policy leaders in the opposing camp believe that the incarceration of prisoners places their children "at increased risks for many of the social ills that trip up our younger members of society, for instance, truancy, teen pregnancy, drug use, gang involvement and sexually transmitted diseases and infections" (Price 2006a, 40). If laws will not be reformed because policy makers cannot risk being labeled soft on crime, they should at least be designed to help the children who are being "consigned to the juvenile justice system and social bureaucracies" (Price 2006a, 40) in the United States because a parent is being removed from the household (usually the breadwinner) and incarcerated.

Conclusion

Research on prison construction reveals a trend toward fewer prisons being built in the near future, but individual facilities will become larger (Dallao 1997). Another trend taking place is that facilities being built today are different from the ones built in the past (Dallao 1997). These trends appear to be national in scope. Other trends worth examining are the use of more technology, the use of more prefabricated materials, and higher costs of prison construction.

In the wake of the severe economic recession of 2008–2009, prison construction has slowed in many areas even while there has been a shift toward increased acceptance of prison-building projects in the eastern region of the United States (Reutter 2010). This trend is a complete reversal of the previous prison construction trend. Although prison construction has shifted eastward to a degree and fewer prisons are being built, the overall trend is still toward long periods of incarceration. In recent years, federal prisons and the numerous jails throughout the country have experienced a climb in prison population as a result of a crackdown on immigration. This, too, seems a trend that likely will continue—unless new laws are enacted that overhaul the current immigration system.

See also **African American Criminal Injustice; Alternative Treatments for Criminal Offenders; Immigration and Employment Law Enforcement; Prison Sexual Assault; Prisons—Supermax; Three-Strikes Laws; War on Drugs**

Further Reading

Abrams, K., S. Abrams et al., "Issues in Siting Correctional Facilities: An Informational Brief." http://www.nicic.org/pubs/1992/010591.pdf

AELE Law Enforcement Legal Center, "Private Prisons and Their Employees: Civil Liabilities and Defenses." September 2010. http://www.aele.org/law/2010all09/2010-09MLJ301.pdf

American Legislative Exchange Council (ALEC), http://www.alec.org

Armsbury, C., "Reinstating Federal Parole is Smart Economics." *Razor Wire* 8, no. 2 (November 2005).

Collins, William C., *Privately Operated Speculative Prisons and Public Safety: A Discussion of Issues.* Washington, DC: Corrections Program Office, Office of Justice Programs, United States Department of Justice, 1998.

Corrections Corporation of America (CCA), http://www.correctionscorp.com

Dallao, Mary, "Prison Construction Trends: States Build Fewer but Larger Facilities." *Corrections Today* 59, no. 2 (1997): 70.

"Drug Policy Analysis: Education versus Incarceration." http://www.drugpolicy.org/communities/race/educationvsi

Gangi, Robert, Vincent Schiraldi, and Jason Zeidenberg, *New York State of Mind? Higher Education vs. Prison Funding in the Empire State, 1988–1998.* Washington, DC: Justice Policy Institute, 1998.

Geo Group Inc., http://www.thegeogroupinc.com

Gottschalk, Marie, *The Prison and the Gallows: The Politics of Mass Incarceration in America.* New York: Cambridge University Press, 2006.

Hallet, Michael A., *Private Prisons in America: A Critical Race Perspective.* Urbana: University of Illinois Press, 2006.

Hughes, Kristen A., *Justice Expenditure and Employment in the United States, 2003.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, 2006.

Joel, Dana, "A Guide to Prison Privatization." Heritage Foundation. 1998. http://www.heritage.org/Research/Crime/BG650.cfm

Lawrence, Sarah, and Jeremy Travis, "The New Landscape of Imprisonment: Mapping America's Prison Expansion." Urban Institute. 2004. http://www.urban.org/url.cfm?ID=410994

Levit, S. D., "The Effect of Prison Population Size on Crime Rates: Evidence from Prison Overcrowding Litigation." *Quarterly Journal of Economics* 111, no. 2 (1996): 319–351.

Lynch, Mona, *Sunbelt Justice: Arizona and the Transformation of American Punishment.* Stanford, CA: Stanford Law Books, 2010.

Martin, R., and D. L. Myers, "Public Response to Prison Sitting." *Criminal Justice and Behavior* 32, no. 2 (2005): 143–171.

Martin, Randy, "Community Perceptions about Prison Construction: Why Not in My Backyard." *Prison Journal* 80, no. 3 (2000): 266.

May, John P., and Khilid R. Pitts, eds., *Building Violence: How America's Rush to Incarcerate Creates More Violence.* Thousand Oaks, CA: Sage, 2000.

McShane, Marilyn D., *Prisons in America.* New York: LFB Scholarly Publishing, 2008.

Paulson, A., "New Tack on Teen Justice: A Push away from Prisons." *Christian Science Monitor* (December 8, 2006): 2.

Pratt, Travis C., *Addicted to Incarceration: Corrections Policy and the Politics of Misinformation in the United States.* Los Angeles: Sage, 2009.

Price, Byron Eugene, "Incarceration Nation: For Profit Prison Companies' Success Comes at a Huge Social Cost." *Worth* (August 2006a): 40.

Price, Byron Eugene, *Merchandizing Prisoners: Who Really Pays for Prison Privatization?* Westport, CT: Praeger, 2006b.

Reutter, David M., "Economic Crisis Prompts Prison Closures Nationwide, but Savings (and Reforms) Are Elusive." *Prison Legal News* (September 13, 2010).

Segal, Geoffrey, "Corporate Corrections? Frequently Asked Questions about Prison Privatization." Reason Foundation. November 1, 2002. http://www.reason.org/corrections/faq_private_prisons.shtml

Selman, Donna, and Paul Leighton, *Punishment for Sale: Private Prisons, Big Business, and the Incarceration Binge.* Lanham, MD: Rowman & Littlefield, 2010.

Shichor, D., "Myths and Realities in Prison Siting." *Crime and Delinquency* 38, no. 1 (1992): 70–87.

South Carolina Department of Corrections, "A Chronology of Major Events/Developments." 2007. www.doc.sc.gov/about_scdc/about.jsp

Useem, Bert, and Anne Morrison Piehl, *Prison State: The Challenge of Mass Incarceration.* New York: Cambridge University Press, 2008.

PRISON SEXUAL ASSAULT

Tawandra L. Rowell

With the increase in the number of persons incarcerated over the past few decades, the problem of prison sexual assault has become a matter of concern and controversy. Although there is limited empirical evidence on sexual behavior in correctional environments and much debate over the occurrence and frequency of sexual assaults in total institutions, criminologists acknowledge that sexual assault occurs on a regular basis (Bosworth and Carrabine 2003; Struckman-Johnson and Struckman-Johnson 2000; Wooden and Parker 1982). Many concerns apply to those involved in prison sexual assaults, which are traumatic experiences that have consequences for both inmates and correctional officials, including an increase in the escalation of violence within the institution (Fleisher 1989), suicide (Hanser 2002; Lockwood1980), and related health issues, such as HIV (Gido 2002; McGuire 2005).

Background

According to Beck and Hughes (2005), over the past 20 years the total number of inmates who have been sexually assaulted has probably exceeded 1 million. Sexual assaults in correctional environments are difficult for inmates to escape owing to the highly controlled environment of correctional institutions. Because of this restrictive environment of the prison setting (inmates are prevented from roaming the facility freely), sexual assaults are often heard, witnessed by other inmates, and most often rumored to have taken place (Tewksbury1989a), making these public events. This creates fear and anxiety among other inmates housed within the facility, which can also lead to other forms of violence (Dumond 1992).

Perhaps one of the most frustrating aspects of examining nonconsensual sexual behavior in prison environments is the lack of a clear definition from which to operate. The majority of studies fail to define the sexual terminology for the readers who must interpret their findings (Saum et al. 1995). It is also not uncommon for prison sex researchers to create confusion for inmates participating in such studies when they fail to define whether the behavior being studied is in fact considered sexual assault (Kunselman et al. 2002).

Various definitions have been used to study prison sexual assault, which could be partly responsible for the wide range of rates of male prison sexual assault (Davis 1968). However, even though various questions and definitions have been utilized, over the past few decades a limited number of prison sexual assault studies have given rough estimates regarding the prevalence of sexual assaults in correctional institutions. The findings indicated that between zero and 21 percent of inmates are involved in sexual assaults (Struckman-Johnson and Struckman-Johnson 2000; Davis 1968; Hensley, Tewksbury and Castle 2003; Struckman-Johnson et al. 1996; Tewksbury 1989b).

Both male and female inmates are affected by prison sexual assaults. Although female sexual assault in prison had been documented as early as 1968 (Fishman 1968), the vast majority of research on sexual assault in prison environments involves male inmates (Gaes and Goldberg 2004). Sexual assaults involving female prisoners are rare, largely because most researchers have assumed that sexual behavior between female inmates occurs on a consensual basis (Owen 1998).

In male prison environments especially, the exhibition of aggressive behavior, especially aggressive sexual behavior, promotes individuals to a higher status in the prison sexual hierarchy, one that ensures that they will be relatively free of the threat of violence from others (although there are exceptions), which aggressively furthers an individual's goal of exhibiting his masculinity (Kupers 2001). Prison sex researchers would agree that inmates engaging in sexual assaults can be placed into certain nearly universal categories, particularly as punks, jockers ("studs"), or wolves (Donaldson 1993).

Inmates involved in prison sexual assaults are labeled based on the sexual roles they portray (Struckman-Johnson et al. 1996). This determines the treatment that inmates receive from their fellow inmates as well as from correctional officers (Saum et al. 1995). Then, should they ever be transferred or incarcerated elsewhere, their labels follow them from institution to institution (Struckman-Johnson 1996).

Prison Sexual Assault Research

Studies of Female Sexual Assault

Over the past decade, only a few studies on sexual assault involving female inmates have emerged. Struckman-Johnson and colleagues (1996) examined sexual coercion among female and male inmates in Nebraska correctional facilities. Approximately 7 percent of their female respondents reported that they had been sexually coerced. Next, Struckman-Johnson and Struckman-Johnson (2000) examined sexual assault within seven correctional institutions in the Midwest. The authors reported that between 6 and 9 percent of their sample had been sexually assaulted.

Utilizing letters sent by one female offender over a five-year period, Alarid (2000) qualitatively examined sexual coercion among female inmates. She discovered that such behavior between female inmates is predominantly consensual and that the sexual coercion that does occur in this environment is generally not reported to correctional authorities. According to Alarid, 75 to 80 percent of female inmates tend to experiment with or be involved in some type of consensual sexual relationship while incarcerated, which is in direct contrast with what has been reported in male correctional institutions, where sexual assaults are believed to be more violent and to involve more inmates.

Studies of Male Sexual Assault

Even though prison sex researchers have largely ignored female inmates, studies of male prison sexual assault are also relatively scarce. Such studies tend to report higher

prevalence rates than those conducted in female correctional institutions (Struckman-Johnson and Struckman-Johnson 2000; Tewksbury 1989b). In 1968, Davis conducted one of the first empirical studies designed to examine prison sexual behavior by examining sexual assaults within the Philadelphia Prison System (PPS). He interviewed 3,304 out of 60,000, or approximately 5 percent, of all inmates who passed through the PPS over a two-year period. According to Davis, the sexual assaults in PPS were indicative of an environment that encouraged aggressive sexual behavior.

Since Davis's study was conducted in 1968, results from numerous empirical studies on sexual behavior, particularly sexual assault, among male inmates have been published (Struckman-Johnson and Struckman-Johnson 2000; Tewksbury 1989b). Although 3 percent of Davis's respondents admitted to being victims of prison sexual assaults, estimates from more recent studies indicate that the proportion of male inmates involved in sexual activities while incarcerated, both consensual and nonconsensual, could exceed 15 to 20 percent (Struckman-Johnson and Struckman-Johnson 2000; Wooden and Parker 1982). Nonconsensual sexual behaviors are reportedly the most frequent type of sexual behavior occurring in correctional institutions (Hensley, Koscheski, and Tewksbury 2005). Table 1 summarizes the limited number of previous studies on male prison sexual assault.

In the 1980s a renewed interest sparked a series of prison sexual assault studies. These produced low prevalence estimates (Owen 1998), ranging from 1 to 28 inmates. Over the past 10 years, prison sex researchers continued their inquiries, leading to additional studies attempting to document the frequency and dynamics of prison sexual assaults. This next series of studies captured estimates ranging from 2 to 375 inmates, perhaps the highest prevalence rate yet reported (Owen 1998). Even though the rates vary, the fact that sexual assaults are occurring in correctional environments should compel correctional authorities and criminal justice professionals to devote more attention to this important issue (Struckman-Johnson et al. 1996).

Until recently, prison sexual assault was largely neglected by researchers and legislators. However, the few studies that have been conducted provide important information regarding the extent to which incarcerated individuals are involved in coercive sexual activities. More recently, the federal government has recognized the serious situation involving sexual assaults in correctional settings, passing the first piece of legislation designed to address the issue of sexual assault in correctional environments.

Challenges in Prison Sexual Assault Research

Disclosure

Prior literature has insisted that the underreporting of sexual assault is consistent and universal (Watkins and Bentovin 2000). Many inmates, particularly male inmates, are reluctant to admit any behavior that may result in their being considered less masculine (Wooden and Parker 1982). For instance, only 29 percent of the victims in

TABLE 1. Prevalence Rates from Previous Sexual Assault Studies

Authors	Sample Size	Prevalence	Question Asked
Davis 1968	3,304	2.9 percent (97 inmates)	Not reported.
Carroll 1977	21	40 sexual assaults/year	Based on the reports of informants; questions not reported.
Lockwood 1980	76	1.3 percent (1 inmate)	Informants and staff reported one or two sexual assaults a year.
Nacci and Kane 1982	330 in 17 federal prisons	1 percent assaulted (3 inmates)	Asked if anyone had forced or attempted to force the inmate to perform sex against his will.
Wooden and Parker 1982	200	14 percent (28 inmates)	I have been pressured to have sex against my will __ times.
Tewksbury 1989b	150	0 percent	How many times have you been raped in this prison? While in this prison, how many times has another male tried to have sex with you using threat or force?
Saum, Surrat, Inciardi, and Bennett 1995	101	5.9 percent (1 inmate)	Not reported.
Struckman-Johnson, Struckman-Johnson, Rucker, et al. 1996	474	21 percent (99 inmates)	Since the time you have been in this prison, has anyone ever pressured or forced you to have sexual contact (touching of genitals, oral, or anal sex) against your will?
Hensley, Tewksbury, and Castle 2003	174	1.2 percent (2 inmates)	Not reported.
Hensley, Koscheski, and Tewksbury 2005	142	8.5 percent (12 inmates)	Since you have been incarcerated, has another inmate sexually assaulted you?
Beck and Harrison 2007	23,398 (incl. females)	4.5 percent	Varied (part of National Inmate Survey, involving 146 state and federal prisons).

THE CORRECTIONS OFFICERS HEALTH AND SAFETY ACT

In 1998, the U.S. House of Representatives approved the Corrections Officers Health and Safety Act of 1998, which requires mandatory HIV testing of federal prisoners sentenced to a period of incarceration of six or more months.* Even with the approval of the Corrections Officers Health and Safety Act legislation in 1998, mandatory HIV testing programs have been slow to develop. To date, only 19 state prison systems require HIV testing upon entry into correctional institutions; a few others routinely offer voluntary testing or provide it upon request or clinical indication.**

Since many inmates and correctional officers may be exposed to HIV/AIDS while housed or employed in a correctional environment, the need to diligently focus on the impact of sexual assault cannot be overemphasized. However, research regarding sexual assault is difficult to conduct in prison environments. Prison sex researchers have admitted that there are significant challenges related to conducting research in this area, including gaining access to prison populations and convincing inmates to disclose such sensitive information.**

*K. K. Rapposelli et al., "HIV/AIDS in Correctional Settings: A Salient Priority for the CDC and HRSA." *AIDS Education and Prevention* 14 (2002): 103–113.

**H. M. Eigenberg, "Male Rape: An Empirical Examination of Correctional Officers' Attitudes toward Male Rape in Prison." *Prison Journal* 68 (1989): 39–56.

Struckman-Johnson and colleagues' (Tewksbury 1989b) study of 1,700 male inmates reported their sexual assault experience to correctional authorities. When inmates do agree to participate, convincing them to report their participation in sexual behavior honestly can be challenging. Even when researchers and research teams emphasize that participants' responses will be completely confidential and anonymous, it may be difficult to convince inmates to disclose such sensitive personal information.

Prisoners may underestimate their participation in this behavior because they are concerned with possible repercussions from fellow inmates and correctional officers (Kunselman et al. 2002). Some researchers would argue that there is a widespread inmate code or culture that discourages inmates from reporting sexual assaults regardless of their roles in such behavior (Stastny and Tyrnauer 1982).

The Inmate Code

The inmate or prison code, as it is commonly known, includes a set of unwritten rules designed to help new inmates survive in the prison community. As in the case of other subcultures of deviance, inmates are expected to conform to unorthodox norms, in this case the inmate code. Clemmer (1958) claimed that inmates show solidarity and heighten their status by adhering to the inmate code. Those who refuse to conform to the prison

subculture distance themselves from their fellow inmates, which can lead to serious consequences. For those who conform to the prison subculture, the social distance between them and their fellow inmates is reduced, which can contribute to developing positive relationships. These, in turn, can later serve to protect inmates from abuses such as sexual assault (Fong and Buentello 1991).

Embarrassment at having been sexually victimized or fear of being prosecuted for the perpetration of a sexual assault may discourage participants from disclosing such behavior. Since engagement in sexual assault stigmatizes inmates, they are reluctant to admit that these events occur (Kunselman et al. 2002). Although previous studies demonstrate that male inmates are willing to disclose some information (Struckman-Johnson and Struckman-Johnson 2000; Wooden and Parker 1982), the choice to reveal information regarding one's involvement in sexual assault in the prison environment can have consequences, making inmates reluctant to truly admit their involvement in sexual assaults for fear of being considered "snitches" (Clemmer 1958).

Snitching

Snitching, or providing information to correctional officials about events that have transpired or will transpire in the institution, is strictly forbidden by the prison inmate code. This is perhaps its most important violation and a taboo that has stubbornly persisted (Clemmer 1958). Anyone who dares to report such an occasion to prison authorities will surely endure severe consequences, including physical injury, constant taunting and verbal threatening, and even death on some occasions. "If an inmate reports a sexual assault, even without naming the assailant, he will be labeled a 'snitch,' and a contract will automatically be placed on him, and his life expectancy will be measured in minutes" (Cahill 1990).

The severe consequences associated with snitching protect even rapists from being reported to correctional authorities (Struckman-Johnson et al. 1996). Snitches often find themselves in protective custody, or PC, for their own protection. Convincing prisoners to admit involvement in sexual activities while incarcerated has proven difficult for many researchers. Therefore it is especially important that the research team emphasize the confidential and anonymous nature of inmates' their responses.

Generalizability

Most studies on inmate sexual assault have involved one correctional institution, making generalizations regarding other correctional institutions statistically impossible. However, the information gained from these studies can help to elucidate the nature of prison sexual assaults and the extent to which inmates are exposed to sexually transmitted infections in this environment. Many criminal justice researchers have been able to capture the nature of sexual behavior in male correctional environments. As reported earlier,

THE PRISON RAPE ELIMINATION ACT OF 2003

In 2003, President George W. Bush signed the Prison Rape Elimination Act of 2003 (PREA), which requires correctional institutions to provide data on sexual assaults within their respective facilities. The PREA was initially proposed owing to dissatisfaction with the lack of research being conducted on rape in America's prisons. Additionally, it seeks to address the insufficient training of correctional officers and deficiencies in correctional officials' response to sexual assault in their respective facilities (Prison Rape Elimination Act of 2003, Public Law No. 108–79).

A National Prison Rape Elimination Commission was established to examine federal, state, and local policies regarding prevention of prison sexual assault.

The PREA requires a firm commitment from the nation's correctional institutions. Since the PREA has been implemented, increased attention has been focused on sexual assaults in correctional environments. This is particularly important given the public health consequences for those engaged in these types of activities.

researchers have reported that a fair number of inmates admit to engaging in these types of behaviors. Future research efforts in this area can be worthwhile and could provide much needed insight into inmates' involvement in prison sexual assaults.

Consequences of Sexual Assaults

Numerous consequences may afflict those involved in sexual assaults. Although prison sexual assault studies examine the prevalence of such behavior, they rarely focus on the consequences affecting the individuals that are involved (Dumond and Dumond 2002). All of those involved may experience some physical consequences, particularly the risk of contracting an infectious disease. However, these inmates may experience other physical injuries as well.

Sexual assaults are very devastating experiences for victim, who reportedly experience many emotional, physical, and psychological sequelae (Krebs 2006; Robertson 2003). Victims admit experiencing frequent suicidal thoughts, and some have attempted to commit suicide. Lockwood claimed that 38 percent of the sexual assault victims in his study admitted to having contemplated suicide. Thirty-six percent of Struckman-Johnson's (1996) Nebraska prisons sample indicated that they had experienced suicidal thoughts.

Although most victims do not physically harm themselves following involvement in sexual assaults, there are other physical consequences for those involved in such events. Sexual assaults are usually quite violent and involve the infliction of injuries onto victims and sometimes perpetrators as well (when victims choose to fight back). Physical injuries sustained in sexual assaults include lacerations, bruising, tissue damage, abrasions, and internal injuries (Dumond 2001). In the case of male inmates, sexual assaults usually

involve more than one aggressor, thus increasing the likelihood that this pursuit will be successful (O'Donnell 2004), which also inflicts more pain and injury on the victim. Sexual assaults have occasionally caused the death of victims (Saum et al. 1995). All inmates who are involved in some capacity in sexual activity while incarcerated run the risk of contracting an infectious disease (Dumond 2001).

Spread of Infectious Diseases

Correctional institutions tend to concentrate individuals with infectious diseases (Hammett, Harmon, and Rhodes 2002). In the United States, the prevalence of infectious diseases is approximately four times greater among prisoners than among the general population (Golembeski and Fullilove 2005). Especially where male inmates are concerned, the risk of contracting sexually transmitted diseases from other inmates is greatly increased. This is an especially serious concern because those who are incarcerated generally engage in more risk-taking behavior, which may place them at risk for contracting HIV/AIDS (Grinstead et al. 1999; Krebs and Simmons 2002).

Generally condoms are not readily available in prison. Ninety-six percent of prisons consider condoms contraband (Hammett, Harmon, and Maruschak 1999). This is especially problematic given the fact that many inmates habitually engage in risky sexual behavior, and these behaviors continue in prison (Krebs and Simmons 2002).

Since the majority of correctional systems do not provide testing for infectious diseases unless an inmate has a valid reason for requesting it (reasons can range from being exposed to blood in the workplace to being involved in a fight with another inmate) (Krebs and Simmons 2002), it is difficult to report the rates of infectious diseases accurately. The spread of infectious diseases such as tuberculosis (TB), hepatitis B (HBV) and C (HCV), human immunodeficiency virus (HIV), and acquired immunodeficiency syndrome (AIDS) in correctional communities has been documented (Beck and Hughes 2005; Braithwaite and Arriola 2003). However, HIV/AIDS in this environment is becoming the most pressing concern for correctional authorities.

According to Swartz, Lurigio, and Weiner (2004), the first AIDS case was discovered among prison inmates in 1983. Since this discovery, the spread of HIV/AIDS in correctional settings has been documented (Andrus et al. 1989; Dean, Lansky, and Fleming 2002). The prevalence of AIDS infection is over twice as high in state and federal prisons than among the general U.S. population, and in previous years it has been as much as five times higher (Braithwaite and Arriola 2003; Bureau of Justice Statistics 2009). Every state in the nation has reported at least one male HIV-positive inmate (Krebs and Simmons 2002). In 2008, national data from the Bureau of Justice Statistics indicated that an estimated 19, 924 state inmates and 1,538 federal inmates were HIV-positive.

Conclusion

With the passage of the PREA, interest in the sexual behavior of inmates is expected to increase, hopefully producing research surpassing that which has been conducted in the past. Continued research in this area could have tremendous implications for individuals who are negatively affected by prison sexual assaults. It is hoped that the increase in inquiries will lead to more innovative approaches to examining such a taboo and timely topic, which will eventually lead to more effective and thorough approaches that will fulfill the directive of the Prison Rape Elimination Act (PREA) eliminating sexual assaults in correctional environments.

It is especially important to gather information on HIV risk-related behavior while individuals are still incarcerated. Previous studies on male prison sexual assaults pose many problems, from ineffective sampling techniques that limit generalizability to failing to include important information in the wording of questionnaires. Further research in this area is desperately needed. It could help correctional officials to develop interventions designed to inform and protect those who are believed to be vulnerable to such attacks. Further studies should aim to evoke serious discussion about sexual assault in U.S. correctional institutions.

Correctional institutions are responsible for providing safe and secure living and working environments that will help incarcerated individuals to become productive members of society upon their release. If inmates are persuaded to provide correctional authorities with essential information regarding such behavior, it may encourage the latter to develop programs and allow interventions designed to address these issues. Since the passage of the PREA in 2003, correctional authorities have been required to provide information regarding the number of sexual assaults occurring in their facilities. Further research on prison sexual assault involving inmates and correctional staff could bring awareness of the situation to correctional authorities, possibly prompting them to address this issue more effectively.

The majority of incarcerated individuals return to their communities after a stay of three to five years (Blumstein and Beck 1999, 17–61). Since individuals at risk of contracting HIV frequently move between their home communities and prisons, those who engage in sexual assault will have the potential to transmit it to those residing in their home communities once they are released, which is increasingly becoming a topic of discussion (Braithwaite et al. 2005). An inmate's involvement in sexual assaults while incarcerated can have a tremendous impact on the communities to which they will return. Given the fact that most prisoners will resume sexual activity soon after release (Dolan, Lowe, and Shearer 2004), continuing to ignore such a serious issue can have severe consequences for society overall.

See also **Juveniles Treated as Adults; Prison Construction**

Further Reading

Alarid, L. F., "Sexual Assault and Coercion Among Incarcerated Women Prisoners: Excerpts from Prison Letters." *Prison Journal* 80 (2000): 391–406.

Andrus, J. K., D. W. Fleming, C. Knox, et al., "HIV Testing in Prisoners: Is Mandatory Testing Mandatory?" *American Journal of Public Health* 79 (1989): 840–42.

Beck, Allen J., and Paige M. Harrison, *Sexual Victimization in State and Federal Prisons Reported by Inmates, 2007.* Washington, DC: Bureau of Justice Statistics, 2007. http://bjs.ojp.usdoj.gov/index.cfm?ty = pbdetail&iid = 1149

Beck, Allen J., and T. A. Hughes, *Sexual Violence Reported by Correctional Authorities, 2004.* Washington, DC: U.S. Department of Justice, July 2005.

Blumstein, A., and A. Beck, "Factors Contributing to the Growth in U.S. Prison Populations." In *Prisons,* ed. M. Tonry and J. Petersilia. Chicago: University of Chicago Press, 1999.

Bosworth, M., and E. Carrabine, "Reassessing Resistance: Race, Gender and Sexuality in Prison." Punishment and Society 3 (2003): 501–15.

Braithwaite, R. L., and K.R.J. Arriola, "Male Prisoners and HIV Prevention: A Call for Action Ignored." *American Journal of Public Health* 93 (2003): 759–763.

Braithwaite, R. L., et al., "Short-Term Impact of an HIV Risk Reduction Intervention for Soon-to-Be-Released Inmates in Georgia." *Journal of Health Care for the Poor and Underserved* 16 (2005): 130–39.

Bureau of Justice Statistics, *HIV in Prisons 2007–2008.* Washington DC: National Institute of Justice, 2009.

Cahill, T., "Prison Rape: Torture in the American Gulag." In *Men and Intimacy: Personal Accounts Exploring the Dilemmas of Modern Male Sexuality,* ed. F. Abbott. Freedom, CA: Crossing, 1990.

Chonco, N. R., "Sexual Assaults among Male Inmates: A Descriptive Study." *Prison Journal* 69 (1989): 72–82.

Clemmer, D., *The Prison Community.* Boston: Christopher Publishing House, 1958.

Davis, A. J., "Sexual Assaults in the Philadelphia Prison System and Sheriffs' Vans." *Trans-Action* (1968): 8–16.

Dean, H. D., A. Lansky, and P. L. Fleming, "HIV Surveillance Methods for the Incarcerated Population." *AIDS Education and Prevention* 14 (2002): 65–74.

Dolan, K., D. Lowe, and J. Shearer, "Evaluation of the Condom Distribution Program in New South Wales Prisons, Australia." *Journal of Law, Medicine and Ethics* 32 (Spring 2004): 124–131.

Donaldson, S., "A Million Jockers, Punks, and Queens: Sex among Male Prisoners and Its Implications for Concepts of Sexual Orientation." 1993. http://spr.igc.org/en/stephendonaldson/doc_01_lecture.html

Dumond, R. W., "The Impact and Recovery of Prison Rape." 2001. http://www.spr.org/pdf/Dumond.pdf

Dumond, R. W., "The Sexual Assault of Male Inmates in Incarcerated Settings." *International Journal of the Sociology of Law* 20 (1992): 135–157.

Dumond, R. W. and D. A. Dumond, "The Treatment of Sexual Assault Victims." In *Prison Sex: Practice and Policy,* ed. Christopher Hensley. Boulder, CO: Lynne Rienner, 2002.

Fishman, J. F., *Crucibles of Crime: The Shocking Story of the American Jail.* Montclair, NJ: Patterson Smith, 1968.

Fleisher, Mark S., and Jessica L. Krienert, *The Myth of Prison Rape: Sexual Culture in American Prisons.* Lanham, MD: Rowman & Littlefield, 2009.

Fleisher, Mark E., *Warehousing Violence.* Newbury Park, CA: Sage, 1989.

Fong, R. S., and S. Buentello, "The Detection of Prison Gang Delinquency: An Empirical Assessment." *Federal Probation* 55 (1991): 66–69.

Gaes, G. G., and A. L. Goldberg, *Prison Rape: A Critical Review of the Literature.* Washington, DC: National Institute of Justice, 2004.

Gido, Rosemary L., "Inmates with HIV/AIDS: A Growing Concern." In *Prison Sex: Practice and Policy,* ed. Christopher Hensley. Boulder, CO: Lynne Rienner, 2002.

Golembeski, C., and R. Fullilove, "Criminal (In)justice in the City and Its Associated Health Consequences." *American Journal of Public Health* 95 (2005): 1701–1706.

Grinstead, O. A., B. Zack, B. Faigeles, et al., "Reducing Postrelease HIV Risk among Male Prison Inmates." *Criminal Justice and Behavior* 26 (1999): 453–465.

Hammett, T. H., P. Harmon, and W. Rhodes, "The Burden of Infectious Diseases among Inmates of and Releases from U.S. Correctional Facilities, 1997." *American Journal of Public Health* 92 (2002): 1789–1794.

Hammett, T. H., P. Harmon, and L. M. Maruschak, *HIV/AIDS in Correctional Facilities, Inmate Education Programs, Inmate Health Care, Jails and Jail Inmates, and HIV/AIDS.* Washington, DC: National Institute of Justice, July 1999.

Hanser, R., "Inmate Suicide in Prison." *Prison Journal* 82 (2002): 459–477.

Hensley, Christopher, ed., *Prison Sex: Practice and Policy.* Boulder, CO: Lynne Rienner, 2002.

Hensley, Christopher, M. Koscheski, and R. Tewksbury, "Examining the Characteristics of Male Sexual Assault Targets in a Southern Maximum-Security Prison." *Journal of Interpersonal Violence,* 20 (2005): 667–679.

Hensley, Christopher, R. Tewksbury, and T. Castle, "Characteristics of Prison Sexual Assault Targets in Male Oklahoma Correctional Facilities." *Journal of Interpersonal Violence* 18 (2003): 595–606.

Krebs, C., and M. Simmons, "Intraprison HIV Transmission: An Assessment of Whether It Occurs, How It Occurs, and Who Is at Risk," *AIDS Education and Prevention* 14 (Suppl. B, 2002): 53–64.

Krebs, C. P., "Inmate Factors Associated with HIV Transmission in Prison." *Criminology and Public Policy* 5 (2006): 113–136.

Kunselman, J., R. Tewksbury, R. W. Dumond, and D. A. Dumond, "Nonconsensual Sexual Behavior." In *Prison Sex: Practice and Policy,* ed. Christopher Hensley. Boulder, CO: Lynne Rienner, 2002.

Kupers, T. A., "Rape and the Prison Code." In *Prison Masculinities,* ed. D. Sabo, T. A. Kupers, and W. London. Philadelphia: Temple University Press, 2001.

Kuznel, Regina G., *Criminal Intimacy: Prison and the Uneven History of Modern American Sexuality.* Chicago: University of Chicago Press, 2008.

Lockwood, D., *Prison Sexual Violence.* New York: Elsevier, 1980.

McGuire, D. M., "The Impact of Prison Rape on Public Health." *California Journal of Health Promotion* 3 (2005): 72–83.

O'Donnell, I., "Prison Rape in Context." *British Journal of Criminology* 44 (2004): 241–255.

Owen, B., *In the Mix.* Albany: State University of New York Press, 1998.

Robertson, J. E., "Rape among Incarcerated Men: Sex, Coercion, and STDS." *AIDS Patient Care and STDS* 14 (2003): 423–430.

Sabo, Don, Terry A. Kupers, and Willie London, eds., *Prison Masculinities.* Philadelphia: Temple University Press, 2001.

Saum, C. A., H. L. Surrat, J. A. Inciardi, et al., "Sex in Prison: Exploring the Myths and Realities." *Prison Journal* 75 (1995): 413–430.

Stastny C., and G. Tyrnauer, *Who Rules the Joint? The Changing Political Culture of Maximum-Security Prisons in America.* Lexington, MA: Lexington Books, 1982.

Struckman-Johnson C., and D. Struckman-Johnson, "Sexual Coercion Rates in Seven Midwestern Prison Facilities for Men." *Prison Journal* 80 (2000): 379–390.

Struckman-Johnson, C., D. Struckman-Johnson, L. Rucker, et al., "Sexual Coercion Reported by Men and Women in Prison." *Journal of Sex Research* 33 (1996): 67–76.

Swartz, J. A., A. L. Lurigio, and D. A. Weiner, "Correlates of HIV-Risk Behaviors: Implications for Tailored AIDS Prevention Programming." *Prison Journal* 84 (2004): 486–504.

Tewksbury, R. A., "Fear of Sexual Assault in Prison Inmates." *Prison Journal* 69 (1989a): 62–71.

Tewksbury, R. A., "Measures of Sexual Behavior in an Ohio Prison." *Sociology and Social Research* 74 (1989b): 34–39.

Watkins B., and A. Bentovin, "Male Children and Adolescents as Victims: A Review of the Current Knowledge." In *Male Victims of Sexual Assault,* ed. G. C. Mezey and M. B. King. Oxford, UK: Oxford University Press, 2000.

Wooden, Wayne S., and Jay Parker, *Men behind Bars: Sexual Exploitation in Prison.* New York: Plenum, 1982.

PRISONS—SUPERMAX

Jeffrey Ian Ross

Supermax prisons are controversial for several reasons, not limited to their lockdown policies, lack of amenities, prisoner isolation techniques, strategies of dehumanization, and overall conditions of confinement. Over the past two decades in the United States, correctional systems at the state and federal levels have introduced or expanded the use of supermax prisons (King 1999). These facilities—also known as special (or security) handling units (SHUs) or control handling units (CHUs)—are either stand-alone correctional institutions or wings or annexes inside an already existing prison.

Background

Supermax prisons are a result of the recent growth in incarceration that has occurred throughout many of the world's advanced industrialized countries (Toch 2001). In October 1983, after the brutal stabbing to death of two correctional officers by inmates at

the federal maximum-security prison in Marion, Illinois, the facility implemented a 23-hour-a-day lockdown of all convicts. The institution slowly changed its policies and practices and was retrofitted to become what is now considered a supermax prison. In 1994, the federal government opened its first supermax prison in Florence, Colorado, specifically designed to house supermax prisoners. The facility was dubbed the "Alcatraz of the Rockies."

In the years that followed, many state departments of corrections built their own supermax prisons. Part of the reason for the proliferation of supermax prisons is the conservative political ideology that started in the Reagan administration (1981–1989). During the 1980s, as a response to an increase in the public's fear of crime and to the demise of the "rehabilitative ideal," a punitive agenda took hold of criminal justice and led to an increased number of people incarcerated. This approach was carried forward by George H. W. Bush (1989–1993), Reagan's Republican successor.

Originally designed to house the most violent, hardened, and escape-prone criminals, supermaxes are increasingly used for persistent rule breakers, convicted leaders of criminal organizations (e.g., the Mafia) and gangs, serial killers, and political criminals (e.g., spies and terrorists) (Lovell et al. 2001; Bruton 2004). In some states, the criteria for admission into a supermax facility and the review of prisoners' time inside are very loose or even nonexistent.

The number of convicts being sent to supermax prisons is growing. The supermax maintained by the Federal Bureau of Prisons (FBOP) in Florence, Colorado, for example, incarcerates about 430 people, including such notable criminals as "Unabomber" Ted Kaczynski, Oklahoma City bombing coconspirator Terry Nichols, and former FBI agent and Soviet/Russian spy Robert Hanssen. Nevertheless, only a fraction of those incarcerated in state and federal prisons are sent to a supermax facility. In 2004, approximately

LIST OF SUPERMAX PRISONS IN THE UNITED STATES

Federal Supermax Prisons

United States Penitentiary Administrative Maximum Facility (ADX) in Florence, Colorado, opened 1994. (*Note:* the United States Penitentiary Facility in Marion, IL, which was converted to a supermax in 1983, was downgraded to a medium-security prison in 2006.)

Selected Well-Known State Supermaxes

Maryland Correctional Adjustment Center (MCAC), Baltimore, Maryland, opened 1988

Minnesota Correctional Facility—Oak Park Heights (MCF-OPH), Stillwater, Minnesota, opened 1983

Tamms Correctional Center, Tamms, Illinois, opened March 1998

Varner Supermax, Grady, Arkansas, opened 2000

Wallens Ridge State Prison, Big Stone Gap, Virginia, opened April 1999

25,000 inmates were locked up in this type of prison, representing well under 1 percent of all the men and women who are currently incarcerated across the country (Harrison and Beck 2005; Mears 2005).

The U.S. detention facility located at the Guantanamo Bay military installation is effectively a supermax prison. It houses approximately 190 persons suspected of participating in terrorist activities directed against the Unites States. Numerous controversies, however, surround the Guantanamo detainees and their legal status. Indeed, the prison itself is considered by many to lie outside the jurisdiction of the U.S. legal system, although the U.S. Supreme Court has ruled that the prisoners must, at least be allowed to challenge their detentions in U.S. courts. Because of the controversies involved, the Guantanamo prison is slated to close in 2011 or 2012 and an existing facility in Thomson, Illinois, is to be outfitted as a supermax unit to house most of the remaining detainees.

Conditions of Confinement

One of the more notable features of all supermax prisons is the fact that prisoners are typically locked down 23 hours a day. Other than supervision by correctional officers (COs), prisoners have virtually no contact with other people (fellow convicts or visitors). Access to phones and mail is strictly and closely supervised or restricted. Supermax prisoners have very limited access to privileges such as watching television or listening to the radio.

Supermax prisons also generally do not allow inmates to either work or congregate during the day. (There are notable exceptions. The Maryland Department of Corrections, for example, allows some supermax inmates to congregate during yard time.) In addition, there is absolutely no personal privacy; everything the convicts do is monitored, usually through a video camera that is on all day and all night. Communication with the correctional officers typically takes place through a narrow window on the steel door of the cell and/or via an intercom or microphone system.

Although cells vary in size and construction, in general, they are 12 by 7 feet in dimension. A cell light usually remains on all night long, and furnishings consist of a bed,

OTHER COUNTRIES THAT HAVE SUPERMAX OR SIMILAR FACILITIES

Al Hayer Prison, Riyadh, Saudi Arabia
Goulburn Correctional Centre, Goulburn, New South Wales, Australia
Special Handling Unit, Ste-Anne-des-Plaines, Quebec Canada
Centro de Readaptação Provisória de Presidente Bernardes, Presidente Bernardes, São Paulo, Brazil
Penitenciaría de Combita, Colombia
C Max, Pretoria, South Africa

a desk, a stool made of poured concrete, and a stainless steel sink and toilet. In spite of these simple facilities and the fact that prisoners' rehabilitation is not encouraged (and is next to impossible), supermax prisons are more expensive than others to build and run.

In supermaxes, inmates rarely have access to educational or religious materials or services. Almost all toiletries (e.g., toothpaste, shaving cream, and razors) are strictly controlled (Hallinan 2003). When an inmate is removed from his cell, he typically has to kneel down with his back to the door. Then he is required to place his hands through the door to be handcuffed.

Effects of Incarceration

When it comes to supermax prisons, the mass media and academia have been relatively silent because it is difficult for reporters and researchers to gain access to these or most other penal facilities. In addition, correctional professionals are reluctant to talk with outsiders for fear that they may be unnecessarily subjected to public scrutiny. And even though comprehensive psychological data on individuals kept in these facilities are lacking, numerous reports have nonetheless documented the effects.

All told, the isolation, lack of meaningful activity, and shortage of human contact takes its toll. Supermax prisoners often develop severe psychological disorders, including delusions and hallucinations, which may have long-term negative effects (Rhodes 2004). Furthermore, the conditions inside supermax prisons have led several corrections and human rights experts and organizations (like Amnesty International and the American Civil Liberties Union) to question whether these prisons are a violation of (1) the Eighth Amendment to the U.S. Constitution, which prohibits the state from engaging in cruel and unusual punishment and/or (2) the European Convention on Human Rights and the United Nations' Universal Declaration of Human Rights, which were established to protect not only the rights of people living in the free world but also of those behind bars.

Supermax prisons have plenty of down sides, and not just for the inmates (Lippke 2004). Some people have suggested that all supermax prisons are part of the correctional–industrial complex (see, for example, Christie 2003). Most of the supermaxes in the United States are brand new or nearly so. Others are simply freestanding prisons that were retrofitted. According to a study by the Urban Institute, the annual per-cell cost of a supermax is about $75,000, compared with $25,000 for each cell in an ordinary state prison.

We have plenty of superexpensive supermax facilities—two-thirds of the states now have them. But they were designed when crime was considered a growing problem, and now we have a lower rate of violent crime, which shows no real sign of a turn for the worse. However, as good as these prisons are at keeping our worst offenders out of the way, the purpose of the supermax is in flux.

Conclusion

No self-respecting state director of corrections or correctional planner will admit that the supermax concept was a mistake. And one would be wrong to think that these prisons can be replaced by something drastically less costly. But prison experts are beginning to realize that, just like a shrinking city that finds itself with too many schools or fire departments, the supermax model must be made more flexible in order to justify its size and budget.

One solution is for these facilities to house different types of prisoners. In May 2006, Wisconsin Department of Corrections officials announced that, over the past 16 years, the state's supermax facility in Boscobel—which cost $47.5 million (in 1990) and has a capacity of 500 inmates—has always stood at 100 cells below capacity. It will house maximum-security prisoners, or serious offenders, but individuals who represent a step down from the worst of the worst.

The Maryland Correctional Adjustment Center, also known as the Baltimore Supermax prison, opened in 1989 at a cost of $21 million with room for 288 inmates. Like its cousin in Wisconsin, it has never functioned at capacity. It holds not only the state's most dangerous prisoners but also 100 or so inmates who are working their way through the federal courts. It also serves as the home for Maryland's 10 death row convicts.

Converting cells is one approach, but not the only one. Other ideas include building more regional supermaxes and filling them by shifting populations from other states. This would allow complete emptying out of a given supermax and then closing it down or converting it to another use.

There is also the possibility that some elements of the supermax model could be combined with the approaches of traditional prisons, creating a hybrid that serves a wider population. But different types of prisoners would have to be kept well away from each other—a logistical problem of no small concern.

See also **Cruel and Unusual Punishment; Prison Construction; Prison Sexual Assault**

Note

The last section of this article draws from Jeffrey Ian Ross, "Is the End in Sight for Supermax," *Forbes* (April 18, 2006). http://www.forbes.com/blankslate/2006/04/15/prison-supermax-ross_cx_jr_06slate_0418super.html/

Further Reading

Begg, Moazzam, and Victoria Brittain, *Enemy Combatant: A British Muslim's Journey to Guantanamo and Back.* London: Free Press, 2006.

Bruton, James H., *The Big House: Life inside a Supermax Security Prison.* St. Paul, MN: Voyageur Press, 2004.

Christie, Nils, *The Prison Industrial Complex.* London: Routledge, 2003.

Hafetz, Jonathan, and Mark Denbeaux, eds., *The Guantanamo Lawyers: Inside a Prison Outside the Law.* New York: New York University Press, 2009.

Hallinan, Joseph T., *Going up the River.* New York: Random House, 2003.

Harrison, Paige M., and Allen J. Beck, "Prisoners in 2004." *BJS Bulletin.* Washington DC: U.S. Department of Justice, 2005. http://www.ojp.usdoj.gov/bjs/pub/pdf/p04.pdf

King, Roy D., "The Rise and Rise of Supermax: An American Solution in Search of a Problem." *Punishment and Society* 1 (1999): 163–185.

Lippke, Richard L., "Against Supermax." *Journal of Applied Philosophy* 21, no. 2 (August 2004): 109–124.

Lovell, David, et al., "Who Lives in Supermax Custody?" *Federal Probation* 64 (2000): 33–38.

Mears, Daniel P., *Supermax Prisons: Examining the Impacts and Developing a Cost-Benefit Model.* Washington, DC: National Institute of Justice, 2005.

National Commission on Safety and Abuse in Prison, "Commission on Safety and Abuse in America's Prisons." 2006. http://www.prisoncommission.org

Neal, Donice, ed., *Supermax Prisons: Beyond the Rock.* Lanham, MD: American Correctional Association, 2002.

Rhodes, Lorna A., *Total Confinement: Madness and Reason in the Maximum Security Prison.* Berkeley: University of California Press, 2004.

Riveland, Chase, *Supermax Prison: Overview and General Considerations.* Longmont, CO: National Institute of Corrections, 1998.

Shalev, Sharon, *Supermax: Controlling Risk through Solitary Confinment.* Uffculme, UK: Willan Publishing, 2009.

Toch, Hans, "The Future of Supermax Confinement." *Prison Journal* 81 (2001): 376–388.

PUBLIC DEFENDER SYSTEM

Roslyn Muraskin and Matthew Muraskin

For over 50 years now, indigent defendants—that is, those accused of crimes but unable to afford an attorney—have had the right to obtain legal counsel at no cost to themselves by making use of state public defender systems. With that central point settled, the controversies in this area revolve around a number of other issues. For instance, when does the right to use a state-appointed attorney come into play in the state's intervention into a person's life as law enforcement attempts to find culpability for a criminal offense? Is there an appropriate time when the right to counsel may be waived by an accused indigent? Answers to these questions affect the lives of most persons accused of a criminal offense in the United States. For example, in 1998, two-thirds of federal felony defendants could not afford to retain their own counsel, and in 75 of the most populous counties in the United States the figure was 82 percent (U.S. Department of Justice 2001). Other issues have to do with such questions as what is the best way to provide legal services for the indigent and what level of poverty qualifies one for assigned counsel.

Are we reaching indigents who reside outside of the most populous areas in the country? Finally, and overarching most or all of these issues, is the public defender system capable of handling the task we have assigned it using the resources we have provided?

Background

The Sixth Amendment to the U.S. Constitution provides that "[I]n all criminal prosecutions, the accused shall enjoy the right to…have the Assistance of Counsel for his defense." Even earlier than that, Benjamin Austin argued at the Constitutional Conventions, "As we have an Attorney General who acts in behalf of the State, it is proposed that the Legislature appoint another person (with a fixed salary) as Advocate General for all persons arraigned in criminal prosecutions; whose business should be to appear in behalf of all persons indicted by the State's Attorney." (Smith and Bradway 1936, 53). But the idea remained dormant for the next 100 years.

In 1896, however, bills were introduced in 12 state legislatures to establish public defender officers. By 1917, public defender bills had been introduced in 20 states. By 1926, there were 12 working public defender offices, and by 1933 at least 21 offices were up and running in the United States (Barak 1980). However, the right to have such a defense was pretty much a hollow one until the middle of the 20th century, as the vast majority of defendants who were too poor to hire a lawyer on their own came from other jurisdictions. Indeed, the National Legal Aid and Defender Association reports on their Web site that, until the middle of the 20th century, most criminal defense lawyers worked on a *pro bono* basis even in capital cases after being appointed by the individual trial judges; and although there were a few programs to provide representation (i.e., the New York

PUBLIC DEFENDER

The idea of a public defender is actually quite old. Such a system existed in ancient Rome. Later, the ecclesiastical courts of the Middle Ages provided an office of advocate for the poor and an office of the procurator of charity. Both offices were honorable positions, as these courts recognized the needs of accused persons in matters of legal representation. As early as the 15th century, Spain has had an officer corresponding to a public defender. And in 1889, Belgium began a policy of public defense. By the turn of the 20th century, the laws of the following countries provided an office of defenders: Argentina, Belgium, Denmark, England, France, Germany, Hungary, and Mexico. In the United States, the following states had adopted public defender systems by 1993: California, Connecticut, Illinois, Indiana, Minnesota, Nebraska, Ohio, Tennessee, and Virginia.

Source: Gregg Barak, *In Defense of Whom? A Critique of Criminal Justice Reform* (Cincinnati, OH: Anderson, 1980).

City Legal Aid Society starting in 1896 and the Los Angeles Public Defender in 1914), such services were limited to the largest cities in the country.

Legal Developments

In 1932, the U.S. Supreme Court began a many-year process to change the law to require the appointment of counsel to indigents, first in state capital cases (*Powell v. Alabama*) and then, six years later, to all federal prosecutions *(Johnson v. Zerbst).* When faced with the question of requiring counsel for indigents in state noncapital cases in 1943, however, it refused to do so *(Betts v. Brady).* It was not until 1963, in *Gideon v. Wainwright,* that the right was extended to state felony cases, and in 1972 *(Argesinger v. Hamlin),* the Supreme Court held that there was a right to assigned counsel for an indigent in any type of criminal proceeding in which there was a possibility of incarceration. In 1961, the right was extended to pretrial situations at the very beginning of the judicial process (*Hamilton v. Alabama*) and even before, in postarrest interrogations (*Miranda v. Arizona* 1966) and lineups (*United States v. Wade* 1967), as well as after conviction on appeals (*Douglas v. California* 1963).

With the issue of an indigent's right to assigned counsel settled, there now is a vast and continually developing body of law, both federal and state, setting forth the parameters of exactly when the right to counsel attaches and whether and when it can be waived.

Counsel can be waived at any stage of the proceedings; however, the right to counsel attaches at the time of arraignment and even before if the police intend to conduct an interrogation or a lineup. The developing body of law primarily focuses on the factual circumstances surrounding whether there was a valid waiver or not. The controversy revolves around the facts. Did what happen amount to a waiver or not? Did the questioning start before the Miranda warnings; did they precede the questioning, or did they come afterward? Was the person in custody so as to require warnings?

A prime example would be as follows: A detective asks a defendant in custody if he wants to tell his side of the story. The defendant says yes, and before any Miranda warnings are given, the defendant starts to incriminate himself, at which point the officer finally gives Miranda warnings. The question is whether what took place before the warnings were given was substantive in nature or even whether it was a question to ask at all. There is no such thing as a little bit of questioning; you either are questioned or are not, and this is where controversy lies.

Indigent Defense Services

To implement the now required delivery of indigent criminal defense services, several different programs have developed within most localities. They presumably handle conflicts (i.e., multiple defendants or conflicting loyalties such as prior representation of

the victim now accusing the defendant), keep costs down, or provide work for private lawyers.

One method of delivery is by means of a public defender who is a government official, either appointed (i.e., New York) or elected (i.e., Florida) in a particular locality, who—along with his or her staff of lawyers, investigators, and so forth—provides representation to the indigent with a government budget line usually much lower than that of the district attorney. In some localities, such as New York City and its neighboring counties of Nassau and Suffolk, private and separate legal aid societies contract with the local government to provide the major representation in the same manner and structure as a public defender.

Service delivery may also be made with an assigned counsel panel of private lawyers who have agreed to provide representation, as selected, for a previously agreed and usually hourly fee set by a governmental body. The fee usually paid to the assigned counsel is much lower than the normal fee for the service. Indeed, in New York State, the hourly fee was raised to $75 in 2003, having been at $40 per hour since 1985. Another option to provide the required legal services is through a contract with one or more lawyers to handle a specific number of cases for a set fee.

Determination of indigence varies by locality and is usually done by the court making the assignment, the agency or lawyer to be assigned, or by some screening agency set up for that purpose or is a part of some other branch of the executive department of the locality.

According to the Bureau of Justice Statistics, 964 public defender offices across the nation handled 5.8 million indigent defense cases in 2007, at a total expenditure of $2.4 billion (U.S. Department of Justice 2009). This cost, however, is mostly a local one, with county governments in the 100 most populous counties picking up about 60 percent of the tab, although in some states such as New York it is a completely local cost. Maine is the only state having no public defender offices; it provides indigent defense services through private attorneys.

Misdemeanors accounted for about 40 percent of all cases handled by state-based public defender offices and about 50 percent of the cases handled by county-based offices. Misdemeanors were followed by non–capital felony cases (25 percent of state cases and 32 percent of county cases) and by appeals cases (1 percent and a negligible fraction, respectively) (U.S. Department of Justice 2009).

As for staffing and caseloads, the same statistics indicate that more than 17,000 attorneys were employed by public defender offices in 2007, some 4,000 at the state level and nearly 13,000 at the county level. Each state public defense attorney handled, on average, 147 misdemeanor cases, 88 felony cases, and 3 appeals cases in 2007. County-based public defenders handled, on average, 164 misdemeanors and 2 appeals. Half of all state-based public defender offices had formal caseload limits in place in 2007, whereas less than one fifth of county-based programs had the same limits. (In nearly 40 percent

of the county-based programs, however, attorneys had the authority to refuse appointments because of caseload.) (U.S. Department of Justice 2001).

Stresses to the System[1]

Over the past several years there have been an increasing number of cases in which public defenders' offices, underfinanced and overburdened with cases, have failed to meet expectations. Indigent defense programs in Louisiana, Florida, Georgia, Missouri, Kentucky, New York, and Michigan, among others, have been identified as needing overhaul. Indeed, in some cases it is the public defenders themselves who have sued for changes, as they recognize that they no longer can manage high caseloads and at the same time provide adequate representation to each of their clients. Often, there is pressure on defendants to plead guilty to lesser charges in exchange for lighter sentences—one way to avoid the time and expense of a trial. This and other forms of "rushed justice," along with instances of faulty lawyering (stemming from unmanageable caseloads and/or inadequate training and experience), have produced a rise in the number of wrongful convictions. State budget cuts across the nation in the wake of the 2008–2009 financial crisis have only made matters worse (Eckholm 2008; "Hard Times" 2008; Glaberson 2010).

Whether the trend will turn around anytime soon is an open question at this point. Louisiana, for one, has implemented large-scale changes intended to ensure that both the letter and spirit of *Gideon v. Wainwright* are addressed. New York only recently (2010) was ordered by the state supreme court to fix its broken public defender system, and what that state does may serve as a model for other states. Meanwhile, several states and districts faced with challenges to their public defender systems have already begun the process of self-examination and public discussion.

See also **Alternative Treatments for Criminal Offenders; Class Justice; Miranda Warnings; Poverty and Race (vol. 1)**

Note

1. This section and parts of the previous one were contributed by Michael Shally-Jensen.

Further Reading

Barak, Gregg, *In Defense of Whom? A Critique of Criminal Justice Reform.* Cincinnati, OH: Anderson, 1980.

Braswell, Michael C., Belinda R. McCarthy, and Bernard J. McCarthy, *Justice, Crime and Ethics,* 6th ed. Cincinnati, OH: Anderson, 2006.

Eckholm, Erik, "Citing Workload, Public Lawyers Reject New Cases." *New York Times* (November 8, 2008).

Glaberson, William, "Court Rules that Suit on Public Defender System Can Proceed." *New York Times* (May 6, 2010).

Grisham, John, *The Innocent Man: Murder and Injustice in a Small Town.* New York: Doubleday, 2006.

"Hard Times and the Right to Counsel." *New York Times* (November 21, 2008).

Muraskin, Roslyn, and Matthew Muraskin, *Morality and the Law.* Upper Saddle River, NJ: Prentice Hall, 2001.

Muraskin, Roslyn, and Albert R. Roberts, *Visions for Change: Crime and Justice in the 21st Century,* 5th ed. Upper Saddle River, NJ: Prentice Hall, 2008.

Rhode, Deborah L., *Access to Justice.* New York: Oxford University Press, 2004.

Robinson, Matthew B., *Justice Blind? Ideals and Realities of American Criminal Justice,* 3d ed. Upper Saddle River, NJ: Prentice Hall, 2008.

Smith, Reginald H., and John S. Bradway, *Growth of Legal-Aid Work in the United States.* Bulletin No. 607. Washington, DC: U.S. Government Printing Office, Department of Labor, 1936.

U.S. Department of Justice, Bureau of Justice Statistics. "Indigent Defense Statistics." Washington, DC: U.S. Government Printing Office, October 1, 2001.

U.S. Department of Justice, Bureau of Justice Statistics, "Public Defender Offices, 2007." November 2009. http://bjs.ojp.usdoj.gov/content/pub/pdf/pdo07st.pdf

Weiss, Michael Scott, *Public Defenders: Pragmatic and Political Motivations to Represent the Indigent.* New York: LFB Scholarly Publishing, 2004.

Wice, Paul B., *Public Defenders and the American Justice System.* Westport, CT: Praeger, 2005.

R

RACIAL, NATIONAL ORIGIN, AND RELIGION PROFILING

Judith Ann Warner and Karen S. Glover

Racial profiling has eclipsed most other criticisms of the police–minority and immigrant relationship and has emerged as perhaps the most controversial social issue in that area. Singling out an individual on the basis of race or national origin for law enforcement scrutiny is generally called racial profiling. *Profiling* refers to criteria police use for traffic stops, but some definitions expand it to any police contact on the basis of suspicion in public spaces, and it is applied in the examination of immigration enforcement. A classic scenario involves a traffic stop of a minority motorist who is under suspicion for the possession of contrabands, specifically illegal drugs. An emergent scenario is the stopping of a Latino and questioning about documentation authorizing him or her to be in the country legally. The import of examining the traffic stop in particular is that it is potentially the first step into the criminal justice system and thus its effects are far-reaching.

Although the association of physical attributes with criminality has a long history, going back at least to Cesare Lombroso's "criminal man" theory from the late 19th century (Fattah 1997), the concept of racial profiling has been articulated as a particularly pressing social problem for our times and thus may be viewed as a somewhat distinct and more narrow issue than the more general concept of ethnic stereotyping. Should a person who appears to be racially different or of different national origin be stopped by law enforcement or questioned in public or in his or her home? Many unauthorized entrants and permanent resident aliens, on the surface, appear to be racially different

or stand out because of ethnic or cultural differences. As a result, law enforcement has practiced racial and national-origin profiling in seeking out unauthorized immigrants for stops on the basis of suspicion of lacking documents or suspicion of committing a crime.

Key Events

Racial profiling processes in the police–minority relationship in the 21st century are embedded within a long history of minority stereotyping. The minority community, long vocal about a tense relationship with law enforcement that constrained citizenship protections, finally received confirmation of their suspicions following the publication of information on *Operation Pipeline,* the Florida drug interdiction program that linked minority status with drug trafficking.

More generally, racial profiling dominates the public discourse, particularly in minority communities, following high-profile events such as the killing of Amadou Diallo or the beating of Rodney King. Community members express outrage at these events and understand them as a consequence of race-based policing. After September 11, 2001, and the linking of terrorism with Middle Eastern identity that followed, the public discourse surrounding racial profiling assumed a different tone, even among many who were once adamantly opposed to the practice. "National security" concerns appeared to trump certain civil liberties immediately following the attack, although with the passage of time, this apparent dichotomy has subsided.

Since 9/11, immigrants have been singled out because they have come from terrorist-harboring nations or because they follow the traditional customs—in dress and so on—of Islam. This too is gives rise to profiling, on the basis of national origin, ethnicity, or religion as well as race. All are forms of profiling are controversial law-enforcement practices because they discriminate against the targeted groups. Profiling can be seen as a form of harassment of targeted immigrant communities. It is viewed as a discriminatory cause of differential crime rates between groups because people from profiled groups are more likely to be stopped by law enforcement or the U.S. Border Patrol and Immigration and Customs Enforcement. Nevertheless, officers need to identify unauthorized entrants and criminal suspects. How this is done is a subject of great controversy. Although racial profiling of citizens by police has been questioned, profiling of noncitizens on the basis of race, national origin, and religion has been a tool used in the war on terror and legitimated by the Supreme Court. At the same time, few citizens are aware of the extent to which their own rights are curtailed within 100 miles of a national border or by legislation passed to fight the war on terror.

Background

After passage of the 1965 Immigration and Nationality Act, the number of racially and ethnically diverse entrants into the United States increased. However, race is now

understood to be more of a cultural idea than a biological reality (Omi and Winant 1994). Although race is a social concept constructed to justify hierarchical rankings between groups as "natural," many Americans still differentiate between racial groups based on skin color and other misleading observations. As a result, many white Americans have reacted very negatively to the perceived racial and cultural differences of the new immigrant population. These negative perceptions have led to a tolerance of racial profiling in policing and immigration enforcement.

The emergence of racial profiling as a unique concept in policing discourse occurred in the 1990s amid a confluence of issues. On the heels of relatively high crime rates associated with drug trafficking in the 1980s, several major cities in the United States implemented crime-control strategies intended to crack down on minor infractions of the law. Drug interdiction policies assumed a priority position in the nation's public discourse and became more and more defined (both formally and informally) by racial and ethnic status issues as well as high-profile incidents of the abuse of force by the police—such as the Rodney King beating. The discovery of a cooperative effort in the 1980s and 1990s between the U.S. Drug Enforcement Agency and the Florida Department of Motor Vehicles, titled *Operation Pipeline,* has been identified as a critical point in the emergence of the racial profiling controversy. This drug interdiction program linked drug courier profiles to the racial and ethnic status of motorists traveling on state highways between Florida and the north (Withrow 2006). Opponents of racial profiling dubbed the regular traffic stops of minorities as due to the "crime" of *driving while black.*

As described by Covington, long-term claims by minorities of being targeted by the police were often viewed as anecdotal accounts from overly sensitive, angry, and disgruntled minorities (Withrow 2006). In part because official documentation of the phenomenon was nonexistent, much of the law enforcement community initially rejected the idea that race-based policing occurred. Indeed, the body of criminological research now available on racial profiling has been established only since the mid-1990s. This predominantly quantitative research focuses on issues of disproportionality in law enforcement–initiated traffic stops.

The main inquiry is whether minorities are subject to traffic stops (considered seizures under Fourth Amendment protections against "unreasonable search and seizures" by the state) disproportionate to their representation in the general driving population. Two early standards of proof guided police discretionary powers in stopping citizens: Fourth Amendment protections against unreasonable seizures without probable cause and later the 1968 U.S. Supreme Court decision in *Terry v. Ohio,* which introduced the legal standard of "reasonable suspicion" into the realm of police powers. Studies generally point to racial disparity in traffic stops, with more minority motorists relative to white motorists being stopped by law enforcement (Covington 2001). Additional inquiries of the racial profiling research agenda include whether minorities are searched more often, are subject to longer stops, receive more punitive measures if penalized during a stop,

and have higher "hit rates" for contraband once a traffic stop is made (Buerger and Farrell 2002). The bulk of the data on these additional inquiries suggests that the answer to all of the questions except the last, is yes. Other attempts to address racial profiling are found in popular press accounts and in legal journals. The legal journals in particular provide a great deal of information on racial profiling and emphasize important distinctions between legal and moral arguments surrounding this issue.

Once racial profiling of minorities became established in the nation's consciousness in the 1990s, Representative John Conyers (D-Michigan) introduced the Traffic Stops Statistics Act in 1997, which passed unanimously in the House of Representatives. Formidable opposition from national police organizations, concerned about the demands the bill would make on law enforcement, effectively neutralized the bill in the Senate (Withrow 2006). Recurring efforts to introduce a federal law to address the issue have followed, with varying degrees of success, including an executive measure by President Bill Clinton in 1999 mandating a nationwide collection of traffic stop data. Currently, most states have enacted or are considering legislation requiring the collection of data on traffic stops by local and state law enforcement. The combined federal and state efforts to collect data on racial profiling along with the lawsuit-generated studies (Withrow 2006), which provided the first empirical glimpse into the issue, have produced a body of data that generally point to racial disparity in the treatment of individuals subjected to examination in traffic stops by law enforcement (Johnson 2001).

The U.S. Department of Justice issued voluntary guidelines for collecting racial profiling data in 2000. These data are collected by the Racial Profiling Data Resource Center at Northeastern University. At present, at least 27 states are participating. The U.S. Department of Justice (2006), has demonstrated that young male African Americans (22 percent) and Latinos (17 percent) are more likely to be searched than non-Latino whites (8 percent). African Americans and Latinos are three times as likely as non-Latino whites to be threatened with force during a police stop. In Rhode Island, research indicated that minority members were twice as likely as whites to be searched during a traffic stop but less likely to be in possession of prohibited drugs (U.S. Department of Justice 2005). This reaffirms New Jersey research showing that African Americans and Latinos were the profiled targets of 75 percent of traffic stops resulting in a search in New Jersey.

The bulk of research on racial profiling concerns the causal dynamics of racial profiling and typically emerges from the conflict framework. For example, in a recent study, researchers used conflict theory to discuss the police–minority relationship and how the law is differentially enforced against minorities in order to protect white interests (Buerger and Farrell 2002). Other research looks at a conflict theory variant, group-position theory, to describe how dominant groups view the police as allies (Harris 2002). Some researchers have discussed how cognitive bias and its associated concept of in-group bias explain the disproportionate numbers of minority motorists stopped by

the police (U.S. Department of Justice 2006). Racial prejudice, although rarely directly discussed (and not necessarily subsumed under the previously mentioned concepts), is another factor in examinations of racial profiling motivations (U.S. Department of Justice 2005). Spatial context is also looked to in explaining racial disparities in policing behavior (Petrocelli, Piquero, and Smith 2004). For example, low-socioeconomic-status communities comprising minorities predominantly may be subject to more patrolling and stops.

The empirical focus on racial disparity in traffic stops was followed by quantitative studies addressing factors leading to an individual's "perception" of being racially profiled (Wilson, Dunham, and Alpert 2004). Theory about the factors that shape citizens' "perceptions" of racial profiling focus on citizens' personal and vicarious experiences (Parker et al. 2004). Racial status is a determining factor in attitudes toward the police. Some theorize that the overall experience of racial oppression and other social institutions operates as a "priming" mechanism for minorities in shaping perceptions of police behavior (Bennett et al. 2004; Tyler and Wakslak 2004; Weitzer and Tuch 1999; Weitzer and Tuch 2004). Studies examining the effects of socioeconomic and racial status on perceptions of discrimination by the police have shown that class is not protective of negative perceptions of the police (Brown and Benedict 2002; Weitzer and Tuch 2005). Research examining the concept of procedural fairness to predict perceptions of racial profiling indicates that the quality of decision making, quality of treatment, and inferences about trustworthiness are the key criteria for minorities in assessing police behaviors (Weitzer and Tuch 2005). "Perception"-orientated research, however, has the potential to be critiqued for its emphasis on the psychological and the individual. There is the concern

RACIAL PROFILING AND DRUG INTERDICTION

Racial profiling is very much an issue of drug interdiction. Research on the common characteristics of suspected drug traffickers shows the wide range of traits that have been used to justify the targeting of individuals suspected of criminal activity.

- Minorities driving expensive or old vehicles or rental cars
- Nervousness when becoming aware of the police patrol car or excessive friendliness when approached by officer
- Large quantities of food wrappers, and so on, indicating a long road trip
- Too much or too little baggage
- Use of air fresheners
- Strict adherence to traffic codes upon noticing police patrol car
- Visible religious paraphernalia (to deflect suspicion)

Source: Brian L. Withrow, *Racial Profiling: From Rhetoric to Reason* (Upper Saddle River, NJ: Pearson Prentice Hall, 2006).

RACIAL PROFILING OF A HISPANIC JUDGE: FILEMON VELA

David Harris, in his book *Profiles in Injustice* (2006), attests to how the Latino U.S. District Judge for South Texas Filemon Vela, was stopped by the U.S. Border Patrol in 1999 while on his way to hold court in Laredo, Texas. When he asked why his Ford Explorer was stopped, he was told there were too many people in the vehicle—although it could have held more. Judge Vela questioned whether the U.S. Border Patrol had the legal authority to stop him. Afterwards, his secretary made a complaint about the policies that resulted in this unjustified stop. The U.S. Border Patrol indicated that it would provide more information for officers so that only legal stops would occur.

In 2000, when Judge Vela was a passenger in another vehicle, he was stopped again. This time the reason given was that the car had tinted windows. These incidents convinced Judge Vela that all Hispanics are profiled to be stopped. Observation has been made that in any area designated as a border, whether an international airport or a highway close to the U.S.–Mexico border, government agents can stop and search people without a warrant, probable cause, or even a reasonable suspicion. The Supreme Court permits this on the basis of national sovereignty. The Court maintains that border stops and searches are legal because they are at the border. Farther inland, at checkpoints located away from a geographical border, the U.S. Border Patrol has wide discretion to act, including on the basis of Mexican physical appearance as one of multiple factors.

that research that treats racial matters in the context of "perceptions" or "ideas" has the effect of distancing structural elements of racial oppression. Examining racial matters as merely ideas "limits the possibility of understanding how it shapes… life chances" (Weitzer and Tuch 1999, 494–507).

The *Whren* Decision

The U.S. Supreme Court's 1996 decision in *Whren v. United States* is perhaps the most important legal ruling concerning racial profiling in the modern era. *Whren* examined whether the police could make a legal traffic stop under pretext. The Court determined that regardless of the initial subjective intentions of the police officer, an objective reason for a stop would make the stop legal (Johnson 2001). A classic example occurs when an officer suspects a motorist of possessing contraband but makes a traffic stop on the motorist under the "pretext" of failing to properly signal or some other minor traffic code violation. The officer then asks for the motorist's consent to search the vehicle, knowing that most citizens do not know that they have a right not to consent to a search. Although an argument may be made that the minor traffic code violation justifies the stop, the decisions about which motorists get stopped for the objective violation is the fundamental concern of racial profiling opponents. In a racially ordered society such as the United States, it is argued, minorities will bear the brunt of this form of policing. The 1996 *Whren* decision is viewed as a lesser standard of proof that an officer has to meet in

order to make a legal stop and therefore represents a broadening of police discretionary powers. Other legal rulings in recent years demonstrate the debate that surrounds the racial profiling controversy.

This has happened so often in traffic that, as mentioned above, it is referred to as driving while black. Skin color is a very dubious basis for making a traffic stop. Many African American professionals driving more expensive cars get stopped because a police officer suspects that the car is stolen. This is experienced as both harassment and a form of discrimination against African Americans. Law enforcement policies have been adopted to reduce these incidents, but African Americans are citizens, whereas many new immigrants are not. Permanent resident aliens and undocumented immigrants have no protection from profiling. Thus, there is a spate of associated terms: driving while brown, driving while immigrant and, most recently, driving while Arab. On the other hand, non-Hispanic white Americans are privileged to receive less police attention and are less likely to be caught for drug possession at a traffic stop.

Unauthorized Immigrant Racial Profiling

The U.S. Border Patrol and the Immigration and Naturalization Service (INS), now the Bureau of Immigration and Customs Enforcement (ICE), originated the racial and national-origin profiling of immigrants. In the U.S.-Mexico border region, there are many Mexican American citizens and Mexican permanent-resident aliens. Because many attempting unauthorized entry over the border are Latino, Mexican citizens and legal Latino residents are more likely to be stopped than individuals of other nationalities. This is a historical practice. In the 1950s, Operation Wetback targeted Mexicans, and in 1986, when undocumented farm workers were eligible for legalization, there was a series of U.S. Border Patrol sweeps to confiscate their documents and deport them until this practice was contested by protestors and the media. The INS/ICE has pursued a very anti-immigrant enforcement strategy that is only partially controlled by immigrant advocates and media publicity.

In 1975, the Supreme Court decided in *United States v. Brignoni-Ponce* (422 U.S. 873) that since Mexicans were estimated to make up 85 percent of undocumented entrants, an officer could use "Mexican appearance" as a "relevant factor" for investigation provided that it was not the only ground for suspicion (Johnson 2001). One result has been that Mexicans—and now Central Americans—have been more likely to be deported than their statistical frequency in the undocumented population would merit. Immigration profiling has an adverse impact on citizens. If Mexican profiling occurs, then Hispanic citizens, permanent resident aliens, and individuals with visas may be stopped, interrogated, and detained as well as individuals of other ethnicity who are mistaken as Hispanic.

Kevin Johnson (2001) alleges that this policy places an unfair burden on the legal Hispanic population, which has greatly grown in size since 1973. He points out that

the estimate that 85 percent of undocumented entrants were Mexican was always overinclusive and that current estimates place Mexicans at 50 percent of the undocumented population. The harms resulting from this policy include that it is embarrassing and humiliating to be stopped, causing emotional stress and the possibility that verbal and physical abuse will occur. Even more importantly, Mexican profiling undermines the status of Hispanics in American society and encourages a stereotype that characterizes Hispanics as "foreigners." This practice has even led to the unlawful arrest and deportation of legal permanent residents and citizens. Hispanics have become doubly suspect; they may be racially profiled as potential criminals or as potential undocumented entrants.

David Cole (2003), a lawyer and immigrant advocate, coined the phrase "driving while immigrant" to refer to police traffic stops based on immigrant racial profiling. Mexicans have been a major focus of the debate on profiling undocumented immigrants. The stereotype that Latinos are illegal can result in unrefined decisions to stop a person because he or she looks Mexican, which is presumably to be justified after the fact. The very low "reasonable suspicion" standard augments this. The U.S. Border Patrol often refers to this as "canned probable cause." David A. Harris, a legal scholar, believes immigrants are judged guilty on sight and disproportionately stopped; their crime or deportation rate will be elevated because non-Latino whites are less likely to be stopped.

Driving while brown, even though Latinos are racially classified as white, is no longer a Supreme Court criterion for stop and search in immigration enforcement. In 2000, the U.S. Court of Appeals for the Ninth Circuit disregarded the *United States v. Brignoni-Ponce* ruling and stated, in *United States v. Montero-Camargo* (177 F.3d 1113, 1118 9th Cir. 1999), that "Hispanic appearance is not a lawful basis for making a stop because it is a 'weak proxy' for undocumented status." The court opinion stated,

> We conclude at this point in our nation's history, and given the continuing changes in our racial and ethnic composition, Latino appearance is, in general, of such little probative value that it may not be considered as a relevant factor where particularized or individualized suspicion is required. Moreover, we conclude, for the reasons that we have indicated that it is also not an appropriate factor.

Some decisions, like that in *U.S. v. Montero-Camaro* (2000), have ruled that race was not a basis by which border patrol agents could detain individuals, while the *Brown v. City of Oneonta* (2000) decision ruled that the many black males who were questioned as potential rape suspects in a particular case did not have their Fourteenth Amendment protections violated (Cole 2003).

National Origin Profiling in Interior Immigrant Raids

There has been a long history of U.S. Border Patrol sweeps using physical appearance. In 1997, the Chandler police cooperated in stopping, detaining, and questioning residents

using skin color as one cue. In 2001 the *New York Times* reported that INS/ICE officers in New York relied on racial and ethnic physical and social characteristics and accents to profile undocumented entrants (Sachs 2001). Relying on group probability as the basis for immigration enforcement, rather than individual suspicion, violates the provision for equal protection under the law provided by the Fourteenth Amendment. There was pressure to end this profiling, but then terrorist catastrophe resulted in a retraction of civil rights, especially for noncitizens.

Pressure on the U.S. Border Patrol is intense because conservatives demand more action while targeted groups, including Latinos, claim civil rights violations (Bennett 2004). In 2004, the Temecula Border Patrol conducted inland sweeps in Norco, Corona, and Escondido, California. Complaints resulted in the Department of Homeland Security denying that it gave authorization for the sweeps. Hispanic protests of immigrant sweeps occurred all over California. The *Los Angeles Times* indicated that more than 150 undocumented immigrants were arrested in San Bernardino and Riverside County, California (Wilson and Murillo 2004). Illustrating a connection between political expediency and reducing national origin profiling, in 2004, a presidential election year, the Latino vote was considered crucial and these sweeps were curtailed. The sweeps frighten both legal immigrants and foreign-born citizens.

Post-9/11 sweeps of undocumented immigrants are less open to public scrutiny because of the secrecy provisions allowed by the Patriot Act of 2001. To understand the level of public fear that can be generated, it must be understood that in the 2004 California sweeps, the U.S. Border Patrol questioned 9, 972 people on trolleys, at bus stops, in train stations, at other public transportation sites, and on the streets (Spagat 2004). They arrested 291 people, a very low strike rate for the degree of public scrutiny involved (Wilson and Murillo 2004).

After 9/11, U.S. Border Patrol efforts were expanded to include sweeps near the Canadian Border (Abramsky 2008). The community of Havre, Montana, considers the train inspections that occur now to be a sign of patriotic defense. Northern U.S. Border Patrol installation has been expensive; its captures include visa-overstaying tourists, undocumented Latinos looking for work, and potential asylum seekers and refugees—no individuals connected to terrorism. Abramsky, writing in *The Nation,* thinks these activities give a false picture of counterterrorism security. Nevertheless, a series of Supreme Court rulings has given the right to demand ID to law enforcement officers and limited the probable cause requirements for search and interrogation of individuals within 100 miles of the two international borders with Canada and Mexico.

In 2005, the Ninth Circuit Court of Appeals ruled in *U.S. v. Cervantes-Flores* that U.S. Border Patrol questions can be asked about citizenship, immigration status, and suspicious activities. Any additional search or detention must be justified by either consent or probable cause. Under provisions of post-9/11 legislation, however, the U.S. Border Patrol has been given additional powers.

National Origin Terrorist Profiling

The history of terrorist suspicion and profiling began with airline bombings such as that of Pan Am Flight 103 over Lockerbie, Scotland. Terrorist hijackings and bombings have been associated with Arabs and Muslims. In the mid-1990s, airports began profiling darker-skinned individuals who spoke Arabic or English with an Arabic accent (Harris 2002). In the mid-1990s, airport stops and searches of Arab and Muslim Americans became routine. Arab and Muslim Americans began to be stigmatized. After the 1996 crash of TWA Flight 800 over Long Island in which terrorism was initially suspected, Arab Americans began to be very harshly treated at airports. President Clinton appointed a commission to study airport security. The result was Computer Assisted Passenger Screening (CAPS), which selects passengers to screen based on their current reservation and not on their race, nationality, ethnicity or religion. Passengers are selected at random.

After 9/11 both President George W. Bush and Attorney General John Ashcroft adopted terrorist profiling on the basis of national origin and religion. Subsequently, Congress approved the Patriot Act. This act gave the INS unlimited power to detain noncitizens who were thought to have a connection to terrorism. A ruling by Ashcroft allowed ICE to suspend a judge's release order in immigrant cases. Proof of a link to terrorism or crime was not needed to detain noncitizens (Human Rights First 2004).

In 2006, a federal judge ruled that immigration law could be used to detain noncitizens on the basis of race, religion, or national origin. This measure supported racial, national origin, and religious profiling of noncitizens. It was made in reaction to a legal case involving the post-9/11 sweeps of Muslim immigrants, the vast majority of whom were not linked to terrorism. In particular, a sweep had been conducted in New York City, the site of the former World Trade Center. The INS and FBI, with assistance of New York City Police, profiled and arrested Muslim Middle Eastern and Southeast Asian immigrants. Many were detained and then deported if immigration violations were discovered.

Many noncitizens were arrested without knowing their rights and were denied due process of the law under the Illegal Immigration Reform and Individual Responsibility Act of 1996 (IIRIRA). The grounds for deportation established by IIRIRA provide for mandatory detention and deportation of permanent resident aliens who commit crimes classified as aggravated felonies. In other words, immigration law was used in a mostly fruitless search for terrorists, which resulted in many national origin or religiously profiled arrests and deportation. Deepa Fernandes (2007) states that INS and FBI agents did not identify themselves or show credentials before asking to see a profiled person's ID, often in their own homes. Immigrants were arrested if they could not provide documentation. These mass arrests were conducted secretly under the terrorist-investigation secrecy provision of the Patriot Act. Attorney General Ashcroft authorized mass arrest of Arab, Southeast Asian, and Muslim men. The noncitizens profiled in the antiterrorism

sweep were interviewed by the INS and FBI. If no link to terrorism was established, they were turned over to the INS for prosecution based on immigration status. Immigrants, immigration advocates, and certain government officials protested the sweeps.

After 9/11 all noncitizen immigrant men from specified Arab and Muslim countries were asked to register with the government. Those profiled included persons from Bangladesh, Indonesia, Egypt, Bahrain, Iran, Iraq, Syria, Algeria, Morocco, North Korea, Oman, Jordan, Kuwait, Pakistan, Libya, Sudan, Saudi Arabia, Afghanistan, Algeria, Eritrea, Lebanon, Qatar, Somalia, Tunisia, the United Arab Emirates, and Yemen. The FBI wanted to interview 5,000 men between 18 and 33 years of age who had entered the United States after the year 2000 from countries identified as having al Qaeda activity. These interviews were designated as voluntary, but if the noncitizen did not appear, he or she was deemed to be guilty of an immigration violation (Fernandes 2007). At the interviews, visa overstayers were identified and ordered deported regardless of any connection to terrorism. Many men who had some form of legal status were detained until the INS cleared them. The detained and deported men often had wives and children who suffered emotionally and economically after the deportations. The immigrant community was horrified.

Federal requests led many states and communities to allow their police to make immigration-related inquiries. In both 2004 and 2005, some 35 police agencies were converted into ICE immigration enforcers. In Florida and other states, immigrant advocates have fought against using police to request immigration status. A negative consequence of using police to enforce immigration law is that immigrant communities fear reporting crime. Many police departments are resisting being used to enforce immigration law for this reason. Nevertheless, in 2005, the House of Representatives passed legislation allowing the police to enforce immigration laws, but the legislation has not passed the Senate.

During the antiterrorism national origin and religion sweep, the government encouraged individuals and communities to be on the lookout for suspicious behavior. The persons identifying people were often coworkers, neighbors, or ex-girlfriends. The reports were connected to possible terrorism, but the result was that many people who were simply out of compliance with visa documentation or residency registration or undocumented were detained and deported. Sometimes these deportations were engineered by people seeking revenge (Fernandes 2007). These individuals and their families were not allowed access to secret evidence. Many had no prior criminal record prior to deportation. Judges were given no authority to review cases in which deportation was mandatory. In addition, the inspector general of the Justice Department (2003) criticized the fact that bail was being denied in all of these cases with no judicial overrides. This meant that deportees would lack assistance of family and legal counsel owing to problems of access.

Amnesty International (2004), a human rights advocacy group, has found that between 9/11 and 2003, Arab American citizens, permanent resident aliens, undocumented

THE GENERAL ACCOUNTING OFFICE STUDY OF U.S. CUSTOMS RACIAL PROFILING

For many years, U.S. Customs used a complicated profile of 43 factors to decide when to search persons or transport. Their first priority was drug smuggling, although terrorist identification is equally important today. This profile was implemented at primary inspection and individuals were directed to secondary inspection or into a further series of ever more intensive and intrusive inspections. In 1999, this profile was disputed as racially biased and an investigation was undertaken by the General Accounting Office (GAO; now called the Government Accountability Office). The GAO found that customs inspectors disproportionately profiled African American women and that black, Hispanic, and Asian women were three times more likely to be strip searched than men of the same race and ethnic background. Latino women were significantly more likely to be x-rayed than non-Latino whites. The customs searches were biased both as to race and gender, and the rates at which contraband was found were highly disproportionate to the profile. In other words, there was a significantly greater probability of finding drugs when men or non-Latino whites were searched. The results of the GAO report suggested that behavioral cues and related information were much more reliable than racial profiling. Thereafter the number of searches declined and the number of hits—percentage of searches finding contraband—greatly increased.

Source: General Accounting Office, "U.S. Customs Service: Better Targeting of Airline Passengers for Personal Searches Could Produce Better Results." Report to the Honorable Richard J. Durbin, U.S. Senate. March 2000. http://www.gao.gov/new.items/gg0038.pdf

entrants, and visa overstayers have been three times more likely than whites to be profiled. Over 75 percent of Arab Americans report having been discriminated against since the destruction of the World Trade Center Towers. Arabs and South Asians have been asked to vacate airplanes because they made passengers anxious. In airports, Sikh Americans, who wear turbans as a part of their religion, have been asked to remove them.

Reasons for and against Racial and National Origin Profiling

In the United States, advocates for minority groups and immigrants argue that flawed ideas in law enforcement have associated race and national origin with crime. This has the impact of criminalizing minorities and immigrants. Such racial profiling in law enforcement is based on several reasons (Leadership Conference on Civil Rights 2004). The first is the stereotype that minorities/immigrants commit a majority of crimes and that profiling them is a good strategy for using police resources. A related idea is that most minority members/immigrants are criminals. Both assertions are baseless (Harris 2002; Leadership Conference on Civil Rights 2004). This linkage is based on prison statistics showing disproportionate rates of minority imprisonment. Unfortunately, few

people connect racial profiling with higher imprisonment rates. Nor do they stop to think that non-Hispanic white privilege with regard to not being stopped or searched might contribute to their underrepresentation in the prison population (aided by their higher socioeconomic status and ability to hire good lawyers) (Harris 1999).

Proponents of racial profiling suggest that minorities are disproportionately subject to stops compared with whites because minorities are disproportionately involved in criminal activity, a variant of statistical discrimination theory. This framework suggests that it is rational, given the distribution of minorities in the criminal justice system, to target minorities for criminal behavior (Weitzer and Tuch 2005). More recent studies suggest that the rationale behind statistical discrimination explanations for racial profiling is discounted when considering the bulk of studies that show that the rates of contraband discovered in traffic stops, for example, are quite similar across racial and ethnic groups (Tomaskovic-Devey, Mason, and Zingraff 2004). Another common argument against the rational discrimination thesis is that racial profiling criminalizes minority groups as a whole, creating distrust or a disconnect between law enforcement and the community. A common refrain from proponents of the practice is that citizens who are innocent of wrongdoing should not be concerned about law enforcement contact or should look upon the practice as merely an inconvenience.

Research indicates that African Americans commit drug-related crimes at a rate that is proportional to their numbers in the population. Although they have been disproportionately profiled for traffic stops, there is a lower rate of finding evidence of drug possession than for when non-Hispanic whites are stopped. Indeed, a General Accounting Office Report (2000) has indicated the opposite. The reason is that race is not a reliable cue. Behavioral and informational cues are better. Switching away from disproportionate searching of minority women and increasing searches of men and non-Hispanic whites reduced the number of searches and greatly increased the success rate.

Another issue related to racial profiling is the stereotype that minorities and/or immigrants commit more violent crimes. This is not relevant to racial profiling. Profiling is practiced in relation to traffic stops, stop-and-frisk actions, and other nonviolent police actions. Many violent crimes have witnesses who can generate a description of whom to look for. Profiling is done in cases of hidden infractions, such as drug trafficking.

Racial profiling was treated as more of an issue prior to 9/11 and the resulting retraction of civil liberties. During the 2000 Bush-versus-Gore presidential election, candidate Al Gore introduced the topic of racial profiling and both George W. Bush and his running mate Dick Cheney came out against it. Conservative pundits continued to advocate it. John Derbyshire (2001) in the *National Review* defended racial profiling as an efficient police technique based on probability that best makes use of limited resources. George Will (2001), writing in the *Washington Post,* purported that using race as a basis for a traffic stop is reasonable as long as it is part of a *group* of risk factors used in assessing suspect behavior. He distinguished between hard profiling (race as the target

characteristic) and soft profiling (race as part of a profile indicating suspicion). In addition, Will indicated that other factors might be the reason that minority drivers were more likely to be stopped, such as vehicle defects and so on.

In 2000, the Gallup public opinion poll showed that 81 percent of Americans were in favor of ending racial profiling. In February 2001, President George W. Bush stated that racial profiling "is wrong and we will end it in America" (U.S. Department of Justice 2003). Attorney General John Ashcroft took this as a charge from the president. Congress moved toward the generation of legislation to this effect. Next, the attacks of 9/11 created insecurity, and a rollback began on the push for the right of minorities not to be profiled. Nevertheless, immigrants and citizens have always been profiled in border regions and in the interior because of the unauthorized entrant issue.

Terrorist Profiling and Stereotypes

Terrorist profiling is based on unjustified stereotypes about the propensity of group members to engage in illegal activity. The majority of immigrants are law-abiding. Similarly, being Arab or Muslim does not make an individual a terrorist. Although all of the 9/11 hijackers were Arab nationals, many terrorists are of different backgrounds. Richard Reid, the "Shoe Bomber" of December 22, 2001, was of Jamaican ancestry with British citizenship. Theodore Kaczynski, the "Unabomber," and Timothy McVeigh were white American citizens who committed terrorist acts. John Walker Lindh (the "American Taliban") and other American citizens have been involved with the Taliban, al Qaeda, and other terrorist groups. Recently, Nigerian and Pakistani individuals have been taken into custody for attempted terrorist acts. "Jihad Jane" (Colleen LaRose), charged with recruiting terrorists to wage war on behalf of Muslims, is a native-born American.

Those who oppose national origin or terrorist profiling argue that the all-too-human way of thinking in terms of stereotypes rather than cues for terrorist behavior has hampered the search for terrorist operatives and hurt many innocent people. Terrorist profiling is a simplistic tactic that does not substitute for using behavior-based cues in enforcement (National Conference on Civil Rights Leadership 2004). Finally, terrorist profiling, like racial profiling, creates fear and alienates immigrant communities from law enforcement instead of encouraging them to help investigations.

Case Probability versus Class Probability as a Profiling Strategy

Gene Callahan and William Anderson (2001), both journalists, believe that the war on drugs has led to racial profiling. They state that when law enforcement uses class probability (i.e., stereotyping a group of socially differentiated individuals), it is profiling, and the claim can be made that individuals targeted on that basis have not received equal protection under the law. Instead, they suggest that law enforcement should use case probability when this is a factor but not all factors have been identified in targeting an

offender. There are two ways of using information about race and ethnicity. Class probability stereotypes a group, but if the race or ethnicity of a suspect has been established by an officer or victim, it is reasonable to focus on finding a suspect with that social characteristic. In other words, it must be germane to a specific case, not part of a general surveillance strategy.

On the basis of case probability, the 9/11 terrorists exhibited several behavioral cues that could have excited suspicion: (1) they bought one-way tickets, (2) they made reservations just before the flights, and (3) they paid with large amounts of cash (in a plastic credit/debit card society). No one connected the dots. Everyone noticed after the fact that they were Arab nationals, which suggests that new recruits of different national origins would be used by always versatile terrorist groups in any new attack. One issue with advocating class (one-dimensional factor) probability is that post-9/11 terrorist profiling focused on national origin and religion with no strategy. Profiled permanent aliens and undocumented immigrants were denied the right to due process and legal counsel if they were "out of status," which means that their immigration paperwork was not current. Many individuals were mandatorily detained and deported, but there is still no connection between the U.S. immigrant communities and 9/11. Critics argue that this was a huge waste of law enforcement resources and taxpayer money in order that federal officials could state that immigrant communities did not contain terrorist organizations.

Profiling and Local Law Enforcement Controversy

287g Immigration Policing Agreements

The 1996 Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) provided for local and state police to cooperate with federal agents in immigration enforcement through the 287g program (U.S. Immigration and Customs Enforcement 2010). In such cases a Memorandum of Agreement (MOA) is signed between the federal government and state or local policing agencies, and participants are supervised by Immigration and Customs Enforcement (ICE). The Obama administration has expanded 287g agreements. Currently, information on noncitizens with civil or criminal violations and/or under suspicion of terrorist connections is entered into a National Crime Information Center (NCIC) database and available to police.

In releasing official statements, officials argue that their deportation efforts especially target criminal aliens. This strategy has received criticism from immigrant advocates concerned about racial profiling and proenforcement conservatives who claim that prioritizing locating and deporting criminal aliens would lead to neglect of those who lack documents. The U.S. Government Accountability Office (2009, 4) found that ICE officials did not document, consistent with internal control standards, that they had enhanced community safety and security by targeting aliens committing violent or other

serious crimes. Certain participating agencies arrested and deported aliens who had committed minor crimes like carrying an open container of alcohol. The Government Accountability Office (GAO) noted that if all 287g participants sought ICE detainment for deportable aliens, they would lack space for detention, including that designated for violent criminal aliens.

287g has primarily led to arrest of nonviolent unauthorized migrants and immigrants. The border metropolis of El Paso's Operation Linebacker resulted in 1,076 arrests of unauthorized entrants and drug charges against 4 noncitizens (Staudt 2008). Data on 287g alien arrests caused ICE to change the memoranda of agreement MOAs and stress that the purpose is to locate, imprison, and remove aliens who commit narcotics or human smuggling violations, gang or organized crimes, and sex-related offenses. Despite federal efforts to involve police, municipalities have not uniformly responded (Krestsedemas 2008, 341–342).

Arguments in favor of involving local and state police in federal immigration enforcement include that they are a "multiple force amplifier." If they are allowed to use immigration status as a factor in questioning and arrest, it increases the likelihood that unauthorized immigrants will be detected. Giving police the go-ahead to probe is considered to assist in detecting terrorist activity. The 9/11 Commission (Eldridge et al. 2004) found that 4 of the 9/11 hijackers were subject to routine traffic stops and could have been detained for speeding ticket or visa violations. An argument against expanding state and local police power is that it would alienate and reduce the cooperation of immigrant community residents. Communities with a concentration of unauthorized immigrants may be less cooperative and underreport crime and victimization to police if they fear that family or community members will be deported (Romero 2006; Martinez 2007). Community policing strategies necessitate frequent contact and good relations between police and neighborhood residents. Police and neighborhood relations are strained if there is fear (Martinez 2007). Furthermore, many immigrants' original homelands are characterized by police corruption and thus these people may be reluctant to trust American police. Racial and national origin screening is another cause for immigrant concern (Krestsedemas 2008, 346–351).

Arizona S.B. 1070: Support Our Law Enforcement and Safe Neighborhoods Act

Racial profiling controversy was renewed by the passage of Arizona Senate Bill 1070, the Support our Law Enforcement and Safe Neighborhoods Act. SB 1070 made it a state misdemeanor crime for a noncitizen to be in the United States without having federal visa or immigration documents, which are required to be carried, and authorizes police to enforce immigration law (Archibold 2010). State and local police are required to check immigration status if there is reasonable suspicion that an individual is an unauthorized entrant. Police can make a warrantless arrest on the basis of probable cause if they believe an individual without documents is an unauthorized alien. After arrest,

individuals cannot be released until establishing legal status by criteria of § 1373(c) of Title 8 of the U.S. Code. A first-time offender can be fined $500 and given up to six months of jail time. In order to avoid arrest, permanent resident aliens and visitors with visas must carry identification documents such as an Arizona driver's license, a non-operator identification license, or any recognized federal, state, or local ID certifying immigration status.

Arizona's state and local police departments could have signed MOA's with the federal 287g program, but that would have required numerous legal contracts. Arizona's law is the first to require police to check immigration status. Both advocates and opponents of the bill gathered for praise or protest during the Arizona legislature's consideration of its passage (Harris, Rau, and Creno 2010). Arizona Governor Jan Brewer stated: "We must enforce the law evenly, and without regard to skin color, accent or social status" (Samuels 2010). The law inspired public protest, constitutional challenges, and calls for an economic boycott of Arizona. One result was the passage of Arizona 2162, which amends the law by stating: "prosecutors would not investigate complaints based on race, color or national origin."

Advocates of the law present ideas such as the "force multiplier" effect in the context of Arizona's upsurge in unauthorized immigration. Drug and human trafficking and spillover drug-related violence are major concerns. Being able to establish legal status aids law enforcement in preventing these activities. Nevertheless, immigration is the domain of federal law and the Arizona bill may be unconstitutional. Multiple lawsuits have been filed against it. An lawsuit filed by the American Civil Liberties Union argues that the bill violates the Supremacy Clause of the U.S. Constitution, which provides for federal authority over the states and, by legal precedent, immigration. Kurt Kobach, a law professor at the University of Missouri–Kansas City School of Law and codrafter of the AZ bill, argues that the bill is constitutional because of the principle of "concurrent enforcement." In other words, the state law parallels federal law, which makes first entry without authorization documentation a misdemeanor (Schwartz and Archibold 2010).

The leading criticism of the bill is that it justifies racial profiling (Schwartz and Archibold 2010). Thinking critically about behavioral or situational cues, it is difficult to come up with *any* that distinguish someone who is not lawfully in the country.

The criteria that might distinguish an unauthorized immigrant overlap with legal resident and native-born minority status are racialized physical features, language and/or accent, and signs of lower- or working-class social status. Ultimately, when police are asked to enforce immigration status, unless they ask everyone, any "suspicion" is likely to be based on racial or national origin profiling unless there is a cause for a traffic stop, such as speeding. Because there is no basis for visually distinguishing between unauthorized and legal residents, including citizens, the law has discriminatory implications.

Arizona S.B. 1070 is likely to result in a pattern similar to "driving while black," and individuals who have a "foreign" appearance are likely to experience traffic stops and

HENRY LOUIS GATES JR. AND THE BEER SUMMIT

An incident that garnered national attention briefly in 2009 was that involving the renowned African American scholar Henry Louis Gates Jr. After returning home to Cambridge, Massachusetts, from a trip abroad, Gates found that the front door to his house was jammed. His driver (who was also African American) tried to help him open it. A neighbor and a passer-by called the Cambridge police department to report suspicious activity, and when the police arrived Gates was arrested for disorderly conduct (he had objected loudly to the officers approaching him). Later the charges were dropped, and Gates and the arresting officer met with President Barack Obama at the White House to smooth over the matter. In February 2010 Gates donated the handcuffs that had been used in the arrest to the Smithsonian Institution. An independent review of the case later in the year reported that the situation could have been avoided and recommended changes in police procedures.

Source: Russell Contreras and Mark Pratt, "Henry Louis Gates Arrest 'Avoidable,' Report Says." *Huffington Post* (June 30, 2010). http://www.huffingtonpost.com/2010/06/30/henry-louis-gates-arrest-_n_630758.html

other public police encounters. The key to proving legal status is identification documentation, which can be legal or fraudulent. Citizens and legal permanent residents will have to carry valid IDs, an inconvenience Americans have strongly resisted when the idea of a national ID card has been proposed.

Conclusion

The broadening of state powers following the terrorist attacks on the United States in 2001 have limited the restrictions put on law enforcement, even at the local police level. Even prior to the attacks, the U.S. Supreme Court's *Whren* decision foreshadowed the direction of federal legislation toward a lessening of citizenry protections. Because the Fourth and Fourteenth Amendments to the U.S. Constitution are often posed as legal remedies to address racial profiling practices, there is limited movement toward criminalizing racial profiling under new law. Advocates of legislation to specifically address racialized issues in the legal realm contend that Fourth and Fourteenth Amendment protection claims are rarely successful legal strategies because of the high standards of proof that each require to prove discrimination.

Near the U.S.-Mexico border everyone is a suspect, citizen and noncitizen alike, with little recourse to Fourteenth Amendment rights regarding inspection of documents and vehicles. The problems of human and drug smuggling have made everyone a suspect to be questioned, and the Supreme Court has validated the right to see ID and to ask questions about suspicious behavior. In the interior, both citizens and noncitizens became suspects in the war on terror, but national origin and religious profiling focused on immigrant communities with, by and large, fruitless results. Citizens have not sufficiently

considered the loss of civil liberties they suffered after 9/11 or when they should get them back, and most are unaware that they have diminished rights within 100 miles of a border.

Immigrant communities are composed of people who can help in the war on terror if they are not alienated by profiling. Will the government come to realize that all forms of profiling violate the Fourteenth Amendment right to equal protection under the law and waste resources that could be better expended in looking for behavioral and informational cues of unlawful activity? Why is it unlikely that driving as a citizen will become the basis of a profile? The debate will continue, and one has to judge whether simple stereotyping rather than good law enforcement practice is the basis of the law and make appropriate changes.

See also **Border Fence; Immigration and Employment Law Enforcement; Patriot Act; Police Brutality; Police Corruption; War on Drugs; Immigration Reform (vol. 3)**

Further Reading

Abramsky, Sasha, *American Furies: Crime, Punishment, and Vengeance in an Age of Mass Imprisonment.* Boston: Beacon Press, 2008.

Amnesty International, *Threat and Humiliation: Racial Profiling, Domestic Security, and Human Rights in the United States.* New York: Amnesty International, 2004. http://www.amnestyusa.org/racial_profiling/report/rp_report.pdf

Archibold, Randal C., "U.S.'s Toughest Immigration Law is Signed in Arizona." *New York Times* (April 23, 2010).

Bennett, Gary G., et al., "Perceived Racism and Affective Responses to Ambiguous Interpersonal Interactions among African American Men." *American Behavioral Scientist* 47 (2004): 963–976.

Bolton, Kenneth, and Joe R. Feagin, *Black in Blue: African-American Police Officers and Racism.* New York: Routledge, 2004.

Brown, Ben, and William Reed Benedict, "Perceptions of the Police: Past Findings, Methodological Issues, Conceptual Issues, and Policy Implications." *Policing: An International Journal of Police Strategies and Management* 25 (2002): 543–580.

Buerger, Michael E., and Amy Farrell, "The Evidence of Racial Profiling: Interpreting Documented and Unofficial Sources." *Police Quarterly* 5 (2002): 272–305.

Callahan, Gene, and William Anderson, "The Roots of Racial Profiling." *Reason* (August/September 2001). http://reason.com/archives/2001/08/01/the-roots-of-racial-profiling

Carmen, Alejandro del, *Racial Profiling in America.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2008.

Cole, David, *Enemy Aliens: Double Standards and Constitutional Freedoms in the War on Terrorism.* New York: New Press, 2003.

Covington, Jeannette, "Round Up the Usual Suspects: Racial Profiling and the War on Drugs." In *Petit Apartheid in the U.S. Criminal Justice System,* ed. Dragan Milanovic and Katheryn K. Russell. Durham, NC: Carolina Academic Press, 2001.

Derbyshire, John, "Racial Profiling: Burning Hotter." *National Review* (October 5, 2001). http://old.nationalreview.com/derbyshire/derbyshire100501.shtml

Eldridge, Thomas R., et al., *9/11 and Terrorist Travel. Staff Report on the National Commission on Terrorist Attacks upon the United States.* 2004. http://govinfo.library.unt.edu/911/staff_statements/911_TerrTrav_Monograph.pdf

Fattah, Ezazt A., *Criminology: Past, Present, and Future.* New York: St. Martin's Press, 1997.

Fernandes, Deepa, *Targeted: Homeland Security and the Business of Immigration.* New York: Seven Stories Press, 2007.

Georges-Abeyie, D., *The Criminal Justice System and Blacks.* New York: Clark Boardman, 1984.

Glover, Karen S., *Racial Profiling: Research, Racism, and Resistance.* Lanham, MD: Rowman & Littlefield, 2009.

Harcourt, Bernard E., *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age.* Chicago: University of Chicago Press, 2007.

Harris, Craig, Alia Beard Rau, and Glen Creno, "Arizona Governor Signs Immigration Law." *Arizona Republic.* April 24, 2010.

Harris, David A., *Profiles in Injustice: Why Racial Profiling Won't Work.* New York: Free Press, 2002.

Human Rights First, *In Liberty's Shadow: U.S. Detention of Asylum Seekers in the Era of Homeland Security.* New York: Human Rights First, 2004.

Johnson, Kevin R., "The Case Against Race Profiling in Immigration Enforcement." *Washington University Law Quarterly* 78 (2001): 675–736.

Kretsedemas, Philip, "What Does an Undocumented Alien Look Like? Local Enforcement and New Immigration Profiling." In *Keeping Out the Other: A Critical Introduction to Immigration Enforcement Today,* ed. David Brotherton and Philip Kretsedemas. New York: Columbia University Press, 2008.

Krivo, Lauren J., and Ruth D. Peterson, *Race, Crime, and Justice: Contexts and Complexities.* Thousand Oaks, CA: Sage, 2009.

Leadership Conference on Civil Rights, *Wrong Then, Wrong Now: Racial Profiling Before and After September 11.* Washington, DC: The Conference, 2004. http://www.civilrights.org/publications/wrong-then/racial_profiling_report.pdf

Martinez, Ramiro, "Incorporating Latinos and Immigrants into Policing Research." *Criminology and Public Policy* 6, no. 1 (2007): 57–64.

Muhammad, Khalil Gibran, *The Condemnation of Blackness: Race, Crime, and the Making of Urban America.* Cambridge, MA: Harvard University Press, 2010.

Omi, Michael, and Howard Winant, eds., *Racial Formation in the United States,* 2d ed. New York: Routledge, 1994.

Parker, Karen F., et al., "A Contextual Study of Racial Profiling." *American Behavioral Scientist* 47 (2004): 943-962.

Petrocelli, Matthew, Alex R. Piquero, and Michael R. Smith, "Conflict Theory and Racial Profiling: An Empirical Analysis of Police Traffic Stop Data." *Journal of Criminal Justice* 31 (2004): 1–11.

Romero, Mary, "Racial Profiling and Immigration Law Enforcement: Rounding Up of Usual Suspects in the Latino Community." *Critical Sociology* 32, no. 2–3 (March 2006): 447–473.

Sachs, Susan, "Files Suggest Profiling of Latinos Led to Immigration Raids." *New York Times* (May 1, 2001).

Samuels, Tanyanika, "New York Politicians Rip into Arizona Immigration Law." *New York Daily News* (April 24, 2010).

Schwartz, John, and Randal C. Archibold, "Law Faces a Tough Road through the Courts." *New York Times* (April 27, 2010).

Spagat, Elliot, "San Diego County Included in Recent Border Sweeps." *North County Times* (June 15, 2004).

Staudt, Kathleen, "Bordering the Other in the Texas Southwest: El Pasoans Confront the Local Sheriff." In *Keeping Out the Other: A Critical Introduction to Immigration Enforcement Today,* ed. David Brotherton and Philip Kretsedemas. New York: Columbia University Press, 2008.

Tomaskovic-Devey, Donald, Marcinda Mason, and Matthew Zingraff, "Looking for the Driving while Black Phenomena: Conceptualizing Racial Bias Processes and Their Associated Distributions." *Police Quarterly* 7 (2004): 3–29.

Tyler, Tom R. and Cheryl J. Wakslak, "Profiling and Police Legitimacy: Procedural Justice, Attributions of Motive, and Acceptance of Police Authority." *Criminology* 42 (2004): 253–281.

U.S. Department of Justice, Inspector General's Office, *The September 11 Detainees.* Washington, DC: Office of the Inspector General, 2003

U.S. Department of Justice, "Racial Profiling Fact Sheet." Washington, DC: Department of Justice, 2003.

U.S. General Accounting Office, *Racial Profiling: Limited Data Available on Motorist Stops.* Washington, DC: Government Printing Office, 2000.

U.S. Government Accountability Office, *Immigration Enforcement: Better Controls Needed over Program Authorizing State and Local Enforcement of Federal Immigration Laws.* Washington, DC: GAO, 2009.

U.S. Immigration and Customs Enforcement, "Delegation of Immigration Authority Section 287(g) Immigration and Nationality Act." January 2010. www.ice.gov/pi/news/factsheets/section287_g.htm

Weitzer, Ronald, and Steven A. Tuch, "Race and Perceptions of Police Misconduct." *Social Problems* 51 (2004): 305–325.

Weitzer, Ronald, and Steven A. Tuch, *Race and Policing in America: Conflict and Reform.* New York: Cambridge University Press, 2006.

Weitzer, Ronald and Steven A. Tuch, "Race, Class, and Perceptions of Discrimination by the Police." *Crime and Delinquency* 45 (1999): 494–507.

Weitzer Ronald and Steven A. Tuch, "Racially-Biased Policing: Determinants of Citizens' Perceptions." *Social Forces* 83 (2005): 1009–1030.

Will, George, "Exposing the 'Myth' of Racial Profiling." *Washington Post* (April 19, 2001).

Wilson, George, Roger Dunham, and Geoffrey Alpert, "Prejudice in Police Profiling." *American Behavioral Scientist* 47 (2004), 896–909.

Wilson, Janet, and Sandra Murillo, "Inland Latinos Alarmed by New Border Patrol Sweeps." *Los Angeles Times* (June 10, 2004).

Withrow, Brian L., *Racial Profiling: From Rhetoric to Reason.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

RIGHT-WING EXTREMISM

Daniel L. Smith-Christopher and Judith Ann Warner

In both the United States and Europe, the late 20th century saw an upsurge in the formation of right-wing extremist groups and other groups often labeled *hate groups* (advocating the expulsion or destruction of an entire people because of race or religion). At the same time, there was an accompanying upsurge in the number of anti-Semitic and racist incidents of harassment and violence. Although most of these groups do not use explicitly religious arguments in defense of their ideologies and ideas, some of them most certainly do. In fact, in one recent study, it is stated that "if there were one thread that runs through the various far-right movements in American history it would be fundamentalist Christianity" (Michael 2003, 65). It is important to know about these groups, particularly because many of them have become quite sophisticated in their public presentation, often masking their true intentions behind quite normal sounding "research groups," "churches," or "cultural activities."

Variety of Groups

Extremist movements, hate groups, and militias have been a part of the American landscape for many decades. The Ku Klux Klan, one of the most notorious of the American-grown terrorist organizations, was originally formed in 1865, based originally in Pulaski, Tennessee. It has been responsible for literally hundreds of lynchings and killings, mostly (but not exclusively) in the southern United States, but it dwindled into virtual nonexistence before World War I. The Klan, however, was revived and refounded by William Simmons, a Christian pastor, in 1915, and advocated versions of the *Christian Identity* doctrine (see below), and recent Klan groups (there are now various splinter groups) have been implicated in violence and murders in the United States as recently as 1981.

Related extremist groups are the various *militias* that provide training in firearms and often advocate being prepared for an ideological battle or outright war between races or that comprise adherents of unacceptable beliefs.

Among the less violent groups but still advocating racism are organizing groups such as the Council of Conservative Citizens (CCC), founded in 1985 in Atlanta, Georgia, but now based in St. Louis, Missouri, with a membership of 15,000.

Finally, there are variations of the *Christian Identity* movements that take the form of a "churches," often using names such as Church of the Aryan Nation or Christian Identity.

Definitions and Membership

Scholars of right-wing groups define these movements in many different ways. How one defines them obviously has serious implications for how many movements fall within these definitions and therefore affect the statistics on how many such groups currently exist.

According to a 1996 study by the Center for Democratic Renewal (an important organization that is considered one of the main watchdog groups keeping tabs on right-wing extremism in the United States), "there are roughly 25,000 'hard core' members and another 150,000 to 175,000 active sympathizers who buy literature, make contributions, and attend periodic meetings" (Michael 2003, 1).

The breakdown of right-wing groups in the United States is presented in Table 1.

However, the Southern Poverty Law Center, one of the main sources of information for right-wing extremist groups, posts on its Web site a list by state of extremist groups active in the United States. Upon reviewing this list (and taking only the top 20 states for active hate groups), one discovers a somewhat surprising comparison with the previous list, suggesting that these groups have a wider geographical distribution than one might expect (see Table 2).

Studies of membership across the United States have reported that the execution of Timothy McVeigh, the main conspirator in the Oklahoma City bombing of the Alfred Murrah Federal Building on June 11, 2001, which killed 168 people, seems to have slowed membership growth in various American hate groups. However, only a few months later, the attack on the World Trade Center in New York City on September 11, 2001, stopped the downward trend in militia membership, and the movement began to pick up membership once again.

Characteristics of Extremist and Hate Groups

George Michael lists a number of characteristics that he suggests are generally common among extremist groups:

1. Small locus of identity. Groups tend to strongly identify themselves with very locally defined groups—at most a nation, but often a race within a nation or a race within a region. Members are not interested in recruiting beyond a select few because they view the rest of the world in highly negative terms.

TABLE 1. Right-Wing Groups in the United States

Region	KKK	Neo-Nazi	Skinhead	Christian Identity	Other	Patriot/ Militia	Total
East	16	23	6	1	30	16	92
South	69	28	6	20	54	51	228
Midwest	39	39	10	9	58	54	209
Southwest	9	9	12	2	23	36	91
West	5	31	6	14	51	60	167
Total	138	130	40	46	216	217	787

Source: Michael 2003, 2.

TABLE 2. Geographic Distribution of Extremist Groups

1. Texas	66
2. California	60
3. Florida	51
4. New Jersey	44
5. Georgia	37
6. Tennessee	37
7. South Carolina	36
8. Alabama	32
9. Missouri	31
10. New York	31
11. North Carolina	29
12. Illinois	28
13. Louisiana	28
14. Pennsylvania	28
15. Ohio	27
16. Michigan	26
17. Mississippi	25
18. Arkansas	24
19. Virginia	22
20. Colorado	17

Source: Southern Poverty Law Center, "Hate Map," 2009. http://www.splcenter.org/intel/map/hate.jsp

2. Low regard for democracy. Although most groups abide by federal rules, they often have a low regard for systems that give too much freedom to all people—including, of course, the excluded groups. This violates their sense of privilege and the feeling that their membership should be limited to a select few.
3. Antigovernment. Many groups view the federal government with great suspicion and see it as hopelessly under the control of particular groups.
4. Conspiracy view of history. Groups view historical as well as recent events according to complicated and dubious theories of conspiracy and control by some particular hated group.
5. Racism. Their views often exclude nonwhite races entirely, but in the case of those who also direct their hatred toward Roman Catholicism, even white Catholics liable to be targeted by hateful propaganda (Michael 2003, 5–6).

There can be differences, however, in certain categories of groups. Militia groups, for example, can be described somewhat differently, as suggested by Mulloy (2008), who cites some common denominators of members of militia groups:

1. Conservative outlook. These are worried about repressive government that imposes undesired limitations on them, usually including taxes and gun control.
2. Weekend adventurers. Some of the less ideological members are simply those who enjoy dressing in camouflage and "playing soldier" in the woods.
3. Libertarian conservatives. These argue against almost all forms of federal government, even if they accept some limited local government as valid.
4. Hardcore extremists. Such people harbor an obsessive conviction that the United States, indeed the world, is in the grip of an all-powerful conspiracy (Mulloy 2008, 3–4).

One can also add that militia and militia-like groups tend to be most active in states where there is a high percentage of gun owners, current and retired military personnel, and law enforcement personnel.

For Americans who fall into any of these categories, two events in the 1990s stand out as national tragedies that fueled a great deal of anger and resentment among some Americans who already tended to hold a conspiracy theory of suspicion toward government. The first was the attempted arrest of Randy Weaver in Ruby Ridge, Idaho, in August 1992. Weaver, a known white supremacist, was arrested for selling sawed-off shotguns to an undercover informant. When he did not appear for his trial, U.S. marshals went to his rural Idaho home to arrest him. The killing of the family dog led to a gun battle in which Weaver's son Sam was killed, as was a federal marshal. Weaver himself was wounded and his wife was killed. The 11-day siege ended when another known member of a so-called patriot group cooperated with the marshals and convinced Weaver to surrender.

The second event was the disastrous end of the police siege of the Branch Davidian religious movement near Waco, Texas, in February 1993. The decision to force an end to a long stand-off resulted in the death of many members of this religious cult. After a 51-day standoff, the FBI decided to invade the complex. In four hours, over 300 canisters of tear gas were injected into the complex and a fire broke out, which killed over 74 members of the movement, including children. Part of the ensuing controversy was stirred not only by the fact that the events were broadcast throughout the nation but also because many of the reasons cited by the government for its aggressive tactics turned out to be unsupported. For example, there was no evidence for the alleged child abuse, and there was no evidence of drug dealing, much less drug producing laboratories, and no massive stockpiling of weaponry. There is even some suggestion that the government enforcement agency known as the ATF (Bureau of Alcohol, Tobacco, and Firearms) wanted to show off a success in Waco in the light of upcoming congressional discussions about the future of the agency and its federal funding.

Most Americans saw these events as isolated incidents involving religious extremists or troubled individuals. But for those inclined to see conspiracies in the modern world,

these events are frequently cited as "evidence" of deeper issues and are often used in virulent literature used to stir up hatred and support for extremist agendas.

Watching the Extremists

Even though there are many organizations that compile information on various extremist and hate groups (including, of course, the FBI), there are four main organizations that are widely noted for reliable information on right-wing extremism and are active in attempting to use legal means to limit such activities. These are:

1. The Anti-Defamation League (ADL), which was founded in 1913 in Chicago by attorney Sigmund Livingston as an organization intended to be a defense agency for Jews in the facing discrimination United States. However, the ADL had been active in organizing information and legal challenges against groups who advocate hatred and/or discrimination against many different minorities. Michael (2003, 15–16) even reports cases of grudging respect for the ADL among some of the groups it has targeted for its effective use of legal challenges (see http://www.adl.org).
2. The Southern Poverty Law Center (SPLC) was founded in 1971 by two lawyers, Morris Dees Jr. and Joseph Levin in Montgomery Alabama. Sometimes considered controversial because of the major fund-raising success of Morris Dees, the charismatic central figure of the SPLC, the organization has nonetheless emerged as one of the most effective in the United States in combating hate groups (Michael 2003, 21–22). SPLC investigations have resulted in "civil suits against many white supremacist groups for their roles in hate crimes. More than 40 individuals and nine major white supremacist organizations were toppled by SPLC suits in the Project's first 17 years" (see http://splcenter.org).
3. Political Research Associates, founded in Chicago in 1981, is "first and foremost a research organization" (Michael 2003, 27). It works to expose movements, institutions, and ideologies that undermine human rights. Two of its affiliates known for their efforts against hate groups are the Center for Democratic Renewal and the Policy Action Network (see http://www.publiceye.org/index.php).

The "Christian Identity" Movement

Among the most explicitly religious groups among the far-right and extremist organizations is the movement known as Christian Identity (variant but related groups appear with names like Church of the Aryan Nation and similar ones). A number of specific groups identify with variations on this train of thought, so it is important to briefly summarize some of the basic ideas encountered in these many versions.

Among the most common ideas that feed the Christian Identity movement ideas are those known as British Israelism or Anglo-Israelism. This is the belief that the white

races of western Europe and especially the Celtic and Germanic peoples are direct descendents of the Lost Tribes of Israel. Thus, the "white" Americans and Commonwealth peoples (Australia, New Zealand, Canada, etc.) are descendants of Israelites and thus have a special status before God.

In the United States, more virulent forms of the Christian Identity movement became deeply anti-Semitic, believing that they had "replaced" the Jews as the true "chosen people of God" and that today's Jews are "descendants of Satan" (Eatwell 2009).

Among the most dangerous of the ideas circulated among Christian Identity followers is the notion of an impending great war between good and evil, largely to be fought between white people on the one side and all nonwhites aligned with the Jews on the other. Christian Identity adherents believe that there were many other people in the world before God made Adam and Eve, but that Adam and Eve were created white and that whites are therefore the ones that God especially cared for. Eve, however, had sex with one of the pre-Adam peoples (therefore nonwhite). Cain was born from this union and was the ancestor of all nonwhite peoples today. Abel, the true son of Adam, was the further ancestor of all white people.

This is then mixed with (very loose) interpretations of, for example, selected portions of the New Testament Book of Revelation, which speaks (symbolically) of a war between good and evil that will finally bind and destroy evil in the world. Some extremist

THE HUTAREE GROUP

In Michigan, in March 2010, nine members of an apocalyptic Christian militia group known as the Hutaree (pronounced Hu-TAR-ay) were arrested by FBI agents and charged with plotting to kill local law enforcement officers in the hope of bringing about a generalized antigovernment revolt. The group's plan was to attack police officers with weapons from its armament and then retreat to dug-in positions protected by land mines and other heavy weaponry. The Hutaree believed that such violence was religiously justified as a means of sparking the final battle between Christians and the Antichrist, here represented by the government. "Jesus wanted us to be ready to defend ourselves using the sword," stated the group's Web site. They had expected other Christian and antigovernment militias to join in. In this case, however, just the opposite occurred. With the FBI in pursuit, one of the Hutaree approached the commander of a neighboring militia to ask for assistance. Instead, the leader turned him down and moreover tipped law enforcement authorities as to the Hutarees' whereabouts. The rationale given by the informant was that it was the right thing to do. Observers who know the area in which the two groups operate speculate that the Hutaree is a fringe organization whose increasing religious zeal (and, to the extent it was known, willingness to kill cops) caused it to be disliked by the local populace.

Source: New York Times (March 30 and 31, 2010).

members within the Christian Identity movement advocate terrorist violence against minorities in the United States, even ahead of the "great war."

Members of Christian Identity movements have been implicated in violent acts in the United States, including the following:

- Eric Rudolph's bombing of the 1996 Atlanta Olympics, and his 1997 bombing of an abortion clinic in Birmingham, Alabama
- The burning of synagogues in Sacramento, California, in 1999
- The murder of a gay couple in Redding, California, the same year
- The attempted murder of five individuals at a Jewish Community Center in Los Angeles in 1999

There appear to be international connections as well, such as the Living Hope Church founded in South Africa by Rev. Willie Smith in the late 1990s in reaction to the fall of the Apartheid racist regime there.

Hate-Crime Laws

The FBI has defined hate crime, sometimes called bias crime, as "a criminal offense committed against a person, property, or society which is motivated, in whole or in part, by the offender's bias against a race, religion, disability, sexual orientation or ethnicity/national origin" (Shively 2005: 2). Almost all states have established criminal penalties for hate crimes. These penalties enhance the severity of punishment for a hate- or bias-motivated crime or establish hate crimes as a new category of crime (a process conceptualized by social scientists as criminalization).

Federal statutes require mandatory reporting of all crime, including hate crime, but there is inconsistency in reporting across all states. Civil rights and immigrant advocates believe that hate crime is unreported partly owing to differences in state and federal laws and their interpretation. Another cause of underreporting is the need for training on how to recognize and classify hate crime. This innovation in law enforcement is subject to further debate. There are lawmakers and lawyers who are not convinced that justice for all will be served by adding hate crime penalties.

Hate crime laws were federally enacted and then adopted by states for four reasons: (1) a bias-motivated crime is viewed as different from a traditional crime because it traumatizes an individual owing to his or her group affiliation; (2) hate crimes place stress on distinct social groups because they view themselves as targets and are subject to more stress than other groups; (3) hate crimes are regarded as particularly heinous because of their underlying motivation and their impact on society; and (4) law enforcement traditionally has not acted forcefully in cases of violence and property crime motivated by hate. Each of these arguments for hate crime laws is examined below.

The creation of hate crime legislation is based on the idea that hate- or bias-motivated crimes are a different type of crime than traditional criminal acts and that they are more

serious. The consequences of hate crime include more negative psychological and emotional consequences for victims, increased violence, and greater physical injury. For example, an individual who is robbed and then beaten extensively because of his or her skin color, religion, or sexual preference has, arguably, had a more traumatic experience than an individual who is briefly assaulted, even if injured, and robbed.

Hate crimes have different consequences for communities because they threaten the safety of singled-out groups of people. No one wants to be a crime victim, and a hate crime indicates that members of a particular group are targets for more hate crime. The targeted group has an increased sense of risk of criminal victimization and views the situation as persecution.

Because of the perception that hate crime is more severe than conventional crime, laws have been created to increase penalties. Hate motivation is thought to make a crime more serious. A social message is sent that penalties will be increased in the hope that this type of crime will be deterred by concern about the increased consequences of conviction. For example, adolescents commit acts of vandalism, but the element of hate motivation and emotion is not usually evoked by this act. If the crime was not motivated by bias, such as breaking the windows of an abandoned house, it would carry a lesser punishment. Vandalism motivated by bias, such as painting swastikas and other hate symbols on a house or a church, would be punished more severely.

The last reason for the creation of hate crime laws and penalties is that victims of hate crimes have traditionally received less law enforcement protection. The hate crime aspect of such acts has not been investigated or is underprosecuted. In other words, hate crimes have been prosecuted in the same way as traditional crime or not prosecuted at all. The hate crime statutes in at least 12 states provide for more law enforcement training in the recognition of hate crime to increase the protection of targeted groups. Recently, federal efforts to train all state and local police departments in the documentation of hate crimes have been expanded. Hate crime laws contribute to an understanding of what hate crime is among both law enforcement and the general public. The general public has increasingly understood and accepted the idea that there is a separate category of crime characterized by hate.

See also **Border Fence; Gun Control; Racial, National Origin, and Religion Profiling; New Religious Movements (vol. 3)**

Further Reading

Barkun, Michael, *Religion and the Racist Right: The Origins of the Christian Identity Movement.* Chapel Hill, NC: University of North Carolina Press, 1996.

Eatwell, Roger, *Fascism and the Extreme Right.* London: Routledge, 2009.

Eatwell, Roger, and Cas Mudde, *Western Democracies and the New Extreme Right.* London: Routledge, 2004.

Hewitt, Christopher, *Political Violence and Terrorism in America: A Chronology.* Westport, CT: Praeger, 2005.

Hewitt, Christopher, *Understanding Terrorism in American: From the Klan to al Qaeda.* London: Routledge, 2002.

Juergensmeyer, Mark, *Terror in the Mind of God: The Global Rise of Religious Violence,* 3d ed. Berkeley, CA: University of California Press, 2003.

Michael, George, *Confronting Right-Wing Extremism and Terrorism in the USA.* London: Routledge, 2003.

Mulloy, D. J., *American Extremism: History, Politics and the Militia Movement.* London: Routledge, 2008.

Shively, M., *Study of Literature and Legislation on Hate Crime in America.* Washington, DC: National Institute of Justice, 2005.

S

SCHOOL VIOLENCE

Leanne R. Owen

In the final years of the 20th century, following a spate of widely publicized school shootings and other high-profile incidents of juvenile violence on school grounds, safety at American educational institutions became an issue. The primary controversy has revolved around whether school violence is a legitimate and realistic cause for worry or panic or whether the actual statistics are quite encouraging despite some political and/or scholarly claims to the contrary. In other words, while some argue that our public schools are experiencing some kind of epidemic of violence, others maintain that citizens should rest assured that our public schools are relatively safe places.

Competing and often contradictory claims about the frequency or rarity of these types of happenings, as well as calls for legislative action aimed at their prevention, flooded the popular media and academic literature alike in the wake of more than a few high-profile shootings. As justification for the passage of the Violent and Repeat Juvenile Offender Accountability and Rehabilitation Act of 1999, it was stated that "Congress finds that juveniles between the ages of 10 years and 14 years are committing increasing numbers of murders and other serious crimes…the tragedy in Jonesboro, Arkansas, is, unfortunately, an all too common occurrence in the United States." In sharp contrast, the Final Report of the Bi-Partisan Working Group on Youth Violence asserted that "there are many misconceptions about the prevalence of youth violence in our society and it is important to peel back the veneer of hot-tempered discourse that often surrounds the issue…it is important to note that,

statistically speaking, schools are among the safest places for children to be" (Center on Juvenile and Criminal Justice 2000).

Background

Public concern about school crime in general and violence in particular can be traced back to the origins of the public school system in the United States (Crews and Counts 1997). Additional attention was directed to the issue with the publication of the *Task Force Report: Juvenile Delinquency and Youth Crime* in 1967 and the Office of Education of the U.S. Department of Health, Education, and Welfare made suggestions as to the role schools could play in curtailing youth crime. Congressional hearings held at the time reflected the broad public concern about delinquency and violence in schools (U.S. Senate Committee on the Judiciary 1975); over the course of the years since, criminologists and laypersons alike have attempted to shed some light on the nature, extent, and root causes of school-based violence.

The three-year period between 1996 and 1999 in particular appeared to many Americans to be fraught with news stories about school violence, and the issue was frequently represented as signaling the beginning of a possible juvenile crime epidemic. On February 2, 1996, 14-year-old Barry Loukaitis opened fire on his algebra class in Moses Lake, Washington, killing two students and a teacher and wounding another individual. Later that month, in Bethel, Alaska, 16-year-old Evan Ramsey killed a fellow student as well as the principal, in addition to wounding two other persons. In October of the following year, in Pearl, Mississippi, 16-year-old Luke Woodham killed two classmates and injured seven. The month of December brought two high-profile cases; the first involved 14-year-old Michael Carneal, who opened fire on a prayer circle at Heath High School in West Paducah, Kentucky, killing three students and wounding five others. That same month, 14-year-old Colt Todd in Stamps, Arkansas, shot two of his classmates while they stood in the school parking lot.

In March 1998, in one of the most widely publicized school shootings, four students and a teacher were killed and 10 others wounded when Mitchell Johnson, age 13, and Andrew Golden, age 11, emptied Westside Middle School in Jonesboro, Arkansas, with a false fire alarm. The case received national coverage, and news magazines led with headlines such as "The Hunter and the Choirboy" (Labi 1998) and "The Boys behind the Ambush" (Gegax, Adler, and Pederson 1998). Throughout the country, politicians, academics, pediatricians, and parents alike were questioning how something like this could happen and what could be done to prevent similar tragedies in the future.

Four other incidents of school shootings were recorded in 1998, in Edinboro, Pennsylvania; Fayetteville, Tennessee; Springfield, Oregon; and Richmond, Virginia. The deadliest recorded school shooting until 2007 took place the following April in Littleton, Colorado, when 18-year-old Eric Harris and 17-year-old Dylan Klebold had plotted for a year to kill 500 people and blow up Columbine High School. At the end of their

hour-long rampage, 12 students and a teacher were dead and an additional 23 people were seriously injured. Klebold and Harris then turned the guns on themselves, effectively ending any hopes of determining definitively what caused them to engage in such unthinkable behavior. Speculation was rife and law enforcement officials suggested that indications of what Klebold and Harris were plotting had existed prior to the attack. Klebold had written a graphic story about slaughtering preppy students as well as a detailed paper about Charles Manson. Harris, in addition to writing about Nazis and guns in schools, made notes about killing in a massacre "to-do" list, including such things as

THE AFTERMATH OF JONESBORO

In the aftermath of what was dubbed the Jonesboro Massacre, different groups of experts have attempted to respond to seemingly unanswerable questions in a variety of ways. Some wondered what stimuli in these children's lives could have possibly prompted them to kill; hunting, popular music, television programs, and violent films were all identified in varying degrees as questionable hobbies that may have exerted undue negative influences on these boys. Some questioned how Johnson and Golden gained access to firearms in the first place, and for these, the answers appeared to lie in restricting purchases and usage of guns. The Clinton administration sought to ban assault weapons as part of a larger, comprehensive effort to prevent crime, focusing on the idea of forbidding military-style weapons in the hopes that they would not fall into the wrong hands (specifically those of children).

For those individuals struggling with the incongruity of physiologically small, slight, immature beings demonstrating a capacity to act in the most violent and sadistic ways imaginable, emphasis appeared to be placed most intently upon the punitive versus the rehabilitative prospects of the criminal justice system. Debates ensued as to whether trying these young people as adults would act as a stronger general deterrent for others in the same age group contemplating similar actions or whether an area of greater concern was the distinct possibility that, if tried and sentenced as adults, these juveniles could conceivably spend the following two or three decades learning how to become better criminals and thereby cement their chances of becoming chronic and repeat offenders. The very ideological underpinnings of the juvenile court system were called into questions as arguments asserted that children were qualitatively different from adults and therefore deserved to be treated rather than punished. This view was countered by contentions that those who commit adult crimes should pay the adult price and do the adult time.

On a local level, the community of Jonesboro launched an $8.4 million federally funded three-year initiative to prevent school violence. Programs were developed to improve school safety as well as school-based and community mental health services, help with early childhood development, and promote education reform. A leadership academy for students was created in hopes of teaching students alternative methods of conflict resolution.

reminders to obtain gas cans, nails, and duffel bags. Further notes and diaries found after their deaths described instances of bullying victimization at school and repeated expressions of rage, hatred, and resentment.

Key Moments/Events

In light of the widespread coverage in the popular media of these high-profile incidents of school violence, the Justice Policy Institute examined data gathered from an earlier study conducted by the Centers for Disease Control and concluded that the likelihood of children becoming victims of school-based violence was as minute as "one in two million" (Olweus 1993). The following month, President Clinton addressed Americans and asserted that "the overwhelming majority of our schools are, in fact, safe" (CNN 1998), a comment reiterated by Attorney General Janet Reno and Education Secretary Richard W. Riley in the report titled *Early Warning, Timely Response: A Guide to Safe Schools* (Dwyer, Osher, and Warger 1998). Subsequent administrations have essentially reiterated such views.

BULLYING

One particular concern raised immediately following the Columbine tragedy was school bullying. A substantial amount of evidence appeared to exist that drew a direct correlation between persistent taunting and insults being leveled at Klebold and Harris and their subsequent outburst. Parents, teachers, counselors, and school administrators began expressing serious worries that bullying, if left unchecked, could result in the victims themselves becoming aggressors. Consequently, many schools began implementing strategies designed to prevent bullying, many modeled after the program developed by Daniel Olweus in Norway (Olweus 1993). A curriculum of conflict resolution was developed around the idea of minimizing antisocial and negative behavior, and programs began teaching children as young as kindergarten age about resolving disputes in a respectful and appropriate manner.

However, some criminologists suggest that bullying has not significantly decreased as a result of these efforts, positing instead that it has simply been transformed from the more overt, direct forms of action to a more invisible, indirect type. In other words, instead of children bullying their fellow classmates by hitting, kicking, punching, threatening, or tripping them—actions that would inevitably attract the attention of teachers and recess or hallway monitors and thus result in sanctions being imposed—they may instead resort to name-calling, instigating malicious gossip, spreading rumors, posting derogatory comments on social networking Web sites such as My Space or Facebook, or sending hateful text or e-mail messages to one another. Such actions may escape the notice of appropriate adult authorities and may therefore persist undeterred for an extended period of time, possibly resulting in physical, emotional, or psychological damage to the student being bullied. A case in South Hadley, MA, in 2010, in which a high school student hung herself in response to bullying, illustrates this point.

In *Indicators of School Crime and Safety 2009,* the 12th installment of a series of annual reports jointly compiled by the National Center for Education Statistics and the Bureau of Justice Statistics, data are presented suggesting that students may actually be better protected against the potentiality of violent crime victimization at school than away from it. The report analyzes the incidence of violent deaths at school (defined as a self- or other-inflicted death occurring on the school grounds) as well as nonfatal student victimization. Violent deaths for children between the ages of 5 and 18 years of age were determined to have declined from 30 to 21 between the 2006–2007 and 2007–2008 school years. During the 2006–2007 academic year (the latest year for which complete data are available), 8 suicides were recorded among school-aged youth, which statisticians have calculated translates into less than one suicide per million students. During that same school year, 1,748 children within the same age range were victims of homicide and 1,296 committed suicide away from school. The conclusion to be drawn is that youth were nearly 60 times more likely to be murdered and 160 times more likely to commit suicide away from school than at school (National Center for Education Statistics 2009).

In addition to violent incidents in which students were killed, the *Indicators of School Crime and Safety 2009* report also measured the incidence and frequency of nonfatal violent victimizations of students, including such offenses as rape, sexual assaults, robbery, and aggravated assault. The authors determined that in each survey year between 1992 and 2007, students reported lower rates of serious violent victimization at school than away from school. Approximately 118,000 students were victims of serious violent crimes at school in 2007 as compared with nearly 164,000 serious violent crime victimizations away from school. Taken as a rate, this figure suggests that 4 students between the ages of 12 and 18 years out of every 1,000 were victims of serious violent crimes at school during this time period, compared with approximately 6 students out of every 1,000 who were victimized away from school. In previous years the ratio was even more dramatic (for example, 8 per 1,000 at school versus 24 per 1,000 away from school in 1997). Less than 1 percent of school-aged children reported serious violent crime victimization within the previous six months (National Center for Education Statistics 2009).

Despite the publication and dissemination of this report and earlier editions of it, a telephone poll by Hart and Teeter Research taken days after the shooting in Jonesboro, Arkansas, revealed that 71 percent of 1,004 adult respondents thought it was very likely or likely that a school shooting could happen in their community (Center on Juvenile and Criminal Justice 2000, 5). A *USA Today* poll from April 21, 1999, conducted the day after the Littleton, Colorado, shooting found that 68 percent of Americans thought it was likely that a shooting could happen in their town or city and that respondents were 49 percent more likely to be fearful of their schools than in the previous year. A *CBS News* phone poll two days after the Littleton, Colorado, shooting (April 22, 1999)

found that 80 percent of Americans expected more school shootings, and the number of people listing crime as the most important problem increased fourfold (from 4 to 16 percent) in the week after the Littleton shooting. Two years later, a Gallup poll revealed that 63 percent of parents still thought it likely that a Columbine-type shooting could happen in their community (Gallup 2001). Matters were only made worse following a mass shooting on the campus of Virginia Tech in 2007 in which 32 people were killed. Although the incident took place on a college campus rather than within a local school district, students, teachers, parents, and administrators remained fearful regarding the prospect of further gun violence in U.S. schools (Fallahi et al. 2009).

Dewey G. Cornell of the Virginia Youth Violence Project has contended that despite the encouraging statistics demonstrating that school violence is not, as some would suggest, an epidemic, it is unsurprising that parents and politicians would be concerned that the opposite is true. He has stated "public perception is easily skewed by media attention to a handful of extreme cases" (Cornell 2003, 1). He alludes to the 2002 version of the *Indicators of School Crime and Safety* study and confirms that the rate of violent crime in public schools in the United States has declined steadily since 1994, with the rate of serious violent crime in 2001 holding steady at half of what it was in 1994 (Cornell 2003, 3).

Kenneth S. Trump, the president of the National School Safety and Security Service, has argued that the methodology of the *Indicators of School Crime and Safety* study is flawed and that school violence levels are not on the decline, as the research seems to claim. He posits that by utilizing reported crime incidents rather than random sampling, "the federal report grossly underestimates the extent of school crime" (Scarpa 2005, 19). Instead, Trump refers to statistics indicating that the number of school-associated violent deaths "jumped to 49 in 2003–2004, more than the two prior school years combined and greater than any school year since 1999" (Scarpa 2005, 19).

Part of the discrepancy may be attributed to the fact that the actual sources of data about school violence in particular and juvenile violence in general may offer contradictory evidence. The Surgeon General's Report on Youth Violence highlights this inconsistency, arguing that official reports and self-reports—the two primary means of obtaining information about violent acts committed by juveniles—are inherently at odds (Satcher 1999). Official reports rely on the number of recorded arrests of juveniles to measure the extent of their lawbreaking behavior, and the surge in arrests for violent crime between 1983 and 1993 is believed to be largely attributable to the proliferation of firearms use by teenagers and the subsequent increased likelihood that confrontations between individuals in that age cohort would turn not only violent but lethal. With an increasing number of schools in all jurisdictions today (rural, suburban, and urban) installing metal detectors and placing security officers on campus, the number of students carrying guns to school has dropped. It is therefore expected that altercations would be less likely to result in homicide and serious injury and thus less likely to draw the attention of police

officers. By 1999, arrest rates for homicide, rape, and robbery had all dropped below the rates for 1983. Arrest rates for aggravated assault were higher in 1999 than they were in 1983 but had nonetheless declined significantly since 1994.

These official statistics are at odds with the data derived from self-reports of juveniles. Confidential surveys, according to the Surgeon General's Report, find that 13 to 15 percent of high school seniors report having committed an act of serious violence in recent years (1993 to 1998). These acts are unlikely to involve firearms and therefore generally do not draw the attention of law enforcement officials. It is estimated that between the early 1980s and late 1990s, the number of violent acts perpetrated by high school seniors increased by nearly 50 percent, a trend similar to that found in arrests for violent crimes in general for all age groups. The surgeon general concludes that youth violence remains an ongoing national problem, albeit one that is largely hidden from public view.

Important Persons/Legal Decisions

In the introduction to the third edition of his landmark book *Folk Devils and Moral Panics,* Stanley Cohen describes the phenomenon of school violence and argues that with the media coverage of each incident, the idea arose that bullying and school shootings were not only commonplace but becoming all too familiar. He alludes to the types of headlines generated by newspapers and magazines (not entirely dissimilar from those employed in the aftermath of the Jonesboro massacre)—such as "The Monsters Next Door: What Made Them Do It?" and "Murderous Revenge of the Trench Coat Misfits"—in identifying school violence as the subject of a modern-day moral panic. One characteristic of a moral panic, according to Cohen, is disproportionality; in other words, it is not that the events in question do not take place but rather that they do not take place with as alarming frequency as indicated by the media (Cohen 2005).

Cohen's arguments are substantiated by the work of Dewey Cornell, who demonstrates that the rate of violent crime in American public schools has declined since 1994 and that, since the late 1990s, the number of homicides committed at school has actually dropped from 35 in 1998, to 25 in 1999, to a low of 2 in 2002, and 4 in 2003 (Cornell 2003). Moreover, he calculates the actual risk of a student-perpetrated homicide taking place at a particular school by referring to the 53 million students who attend the nation's 119,000 public and private schools. He cites 2003 data from the National School Safety Center to demonstrate that between the 1992–1993 school year and the 2001–2002 school year, there were 93 incidents of student-perpetrator homicides on school grounds. Taken as an annual average, he contends that this translates to approximately 9.3 incidents each year over a 10-year period, which, when divided into the 119,000 schools in the United States, ultimately amounts to an annual probability of any school experiencing a student-perpetrated homicide of 0.0000781, or one in every 12,804. Put another way, a parent or teacher can expect a student to commit a homicide at a specific school once every 12,804 years. Cornell argues decisively that schools are not dangerous

places but rather generally safe, constructive environments that may be, from time to time, plagued by random incidents of violence.

In 2008 Congress passed the School Safety Enhancements Act, which, among other features, made schools accountable for keeping students safe during their formative years. Schools now face legal action or potentially even closure if it is determined that the environment they provide is in any way unsafe or dangerous. To that end, schools have experimented with different strategies for the prevention of violence and crime. Some have, as mentioned previously, begun utilizing metal detectors and relying upon assistance from private security officers or police officials. Others have implemented dress codes to discourage the wearing of gang colors or gang insignia and to equalize fashion options regardless of the socioeconomic status of individual students (some of whom might be able to afford brand-name clothes while others could not, thereby causing a rift that might provide grounds for bullying or denigration). Many schools have begun incorporating peer mediation programs into their curricula, encouraging students to arbitrate disputes between their classmates and to ensure that each party is given a fair opportunity to voice concerns and express emotional responses. Some schools are finding these programs easier to implement than others, and research indicates that the selection of appropriate peer mentors and training of both the peer mentors and faculty or staff supervisors is key in bringing about a successful resolution.

Conclusion

It is uncertain whether these strategies will be effective in preventing school violence in the long run. Meta-analysis of the existing literature reflects mixed findings (Scheckner et al. 2004), suggesting that how a program is designed and developed as well as whether there is strong faculty and administrative support (specifically financial support) will have a strong impact on how successful it will be. What some criminologists find worrying is that as schools struggle to ensure safe environments for their students, lest they be court-ordered to close, they may find themselves attempting to conceal evidence of certain types of questionable behavior by arguing that it is not specifically indicative of an unsafe environment at school.

The *Washington Post* reported one such incident in Frederick County, Maryland, which involved a six-year-old girl being fondled by a middle schooler while being driven to her program for gifted students. The bus driver involved in the incident reported seeing middle-school boys describing sex acts to first-graders and attempting to shove a condom into another boy's mouth. When the bus driver told the six-year-old's mother about the fondling incident months later, he also mentioned that he had informed school officials; when pressed, the school denied having any record of the report. Beverly Glenn, the executive director of the Hamilton Fish Institute in Washington, explains that such actions are becoming increasingly common because schools do not want to be designated as unsafe for fear of losing students and consequently losing money. Instead,

an increasing number of such incidents are being handled internally whenever possible, with the implicit justification that the acts themselves, if they take place as this one did on the way either to or from school, are not committed on school grounds and therefore do not render the school environment unsafe (Williams 2005).

It is unclear, then, precisely how useful and effective the various strategies—both school-based and legislative—have been in controlling school violence and whether the problem is actually escalating in severity or diminishing. What is certain is that whenever incidents involving children—either as victims or perpetrators—take place, the news media will report them and further promote the idea that the problem is "all too familiar" and is reaching "epidemic proportions." It is imperative, then, that readers and viewers analyze these reports critically in order to distinguish between fact and myth.

See also **Juvenile Justice; Juveniles Treated as Adults; Serial Murder and Mass Murder; Suicide and Suicide Prevention (vol. 3); Violence and Media (vol. 3)**

Further Reading

CBS News Poll, April 22, 1999.

Center on Juvenile and Criminal Justice, *School House Hype: Two Years Later.* San Francisco: Author, 2000.

CNN, "Clinton Unveils National Guide on School Violence: Program Designed to Help Identify Troubled Kids." August 27, 1998.

Cohen, S., *Folk Devils and Moral Panics,* 3d ed. New York: Routledge, 2005.

"Complete Listing of Worries." *Washington Post* (November 7, 1999).

Cornell, D., *Myths about Youth Violence and School Safety.* Richmond: University of Virginia, 2003.

Crews, G. A., and M. R. Counts, *The Evolution of School Disturbance in America: Colonial Times to Modern Day.* Westport, CT: Praeger, 1997.

Cullen, David, *Columbine.* New York: Twelve, 2009.

Donohue, E. D., V. Schiraldi, and J. Ziedenberg, *School House Hype: School Shootings and the Real Risks Kids Face in America.* Washington, DC: Justice Policy Institute, 1998.

Dwyer, K. P., D. Osher, and C. Warger, *Early Warning, Timely Response: A Guide to Safe Schools.* Washington, DC: Department of Education, 1998.

Fallahi, C. R., et al., "A Survey of Perceptions of the Virginia Tech Tragedy." *Journal of School Violence* 8, no. 2 (April 2009): 120–135.

Gegax, T., J. Adler, and D. Pederson, "The Boys behind the Ambush." *Newsweek* 131, no. 14 (1998): 20–25.

Gerler, E. R. Jr., ed., *Handbook of School Violence.* Binghamton, NY: Haworth, 2004.

Gillespie, M., *School Violence Still a Worry for American Parents.* Princeton, NJ: Gallup, 1999.

Labi, N., "The Hunter and the Choirboy." *Time* 151, no. 13 (1998): 28–37.

Lebrun, Marcel, *Books, Blackboards, and Bullets: School Shootings and Violence in America.* Lanham, MD: Rowman & Littlefield, 2009.

Murray, Thomas R., *Violence in America's Schools: Understanding, Prevention, and Responses.* Westport, CT: Praeger, 2006.

National Center for Education Statistics, *Indicators of School Crime and Safety 2009.* Washington, DC: National Center for Education Statistics, 2009. http://nces.ed.gov/programs/crimeindicators/crimeindicators2009/index.asp

Olweus, D., *Bullying at School: What We Know and What We Can Do.* London: Blackwell, 1993.

Satcher, D., *Youth Violence: A Report of the Surgeon General.* Washington, DC: U.S. Government Printing Office, 1999.

Scarpa, S., *District Administration* 41, no. 2 (February 2005): 19.

Schafer, W. E., and K. Polk, "Delinquency and the Schools." *Task Force Report: Juvenile Delinquency and Youth Crime.* Washington, DC: U.S. Government Printing Office, 1967.

Scheckner, S. S., et al., "School Violence in Children and Adolescents: A Meta-Analysis of the Effectiveness of Current Interventions." In *Handbook of School Violence,* ed. E. R. Gerler Jr. Binghamton, NY: Haworth, 2004.

USA Today/CNN/Gallup Poll Results, April 21, 1999.

U.S. Senate Committee on the Judiciary, *Our Nation's Schools—A Report Card: 'A' in School Violence in Vandalism. Preliminary Report of the Subcommittee to Investigate Juvenile Delinquency.* Washington, DC: U.S. Government Printing Office, 1975.

Williams, E., "As School Bus Sexual Assaults Rise, Danger Often Overlooked." *Washington Post* (June 14, 2005).

SEARCH WARRANTS

Keith G. Logan and Jonathan Kremser

In the 21st century, Americans are challenged with balancing the concern for individual rights with the need for public order through the administration of justice. We have seen license plates with the logo "Live Free or Die," a message intended not to encourage violence but rather to illustrate how Americans have traditionally sought to protect their personal liberties against unnecessary government intrusion. This conviction is perhaps best reflected in Benjamin Franklin's prophetic admonition that "they that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety."

Beginning in the previous decade, however, in part through actions undertaken by President George W. Bush and his Attorney General Alberto Gonzales, questions have been raised about whose interpretation of the Bill of Rights is correct and whether the need for search warrants will prevail in all circumstances. Together, the president and attorney general chose to place a new test before the courts on the need for search warrants or similar lawfully issued orders. From 2002 until at least 2007, the National Security Agency (NSA) was directed to intercept international and domestic electronic communications without the authorization of a search warrant issued by a U.S. district court or other court order issued by the Foreign Intelligence Surveillance Act (FISA) Court.

Needless to say, these actions raised and continue to raise controversy among citizens, scholars, and the legal community as Americans have witnessed a loss of the historically

strong standard needed to be met before agents of the government could enter a home, intercept mail, invade privacy, or collect electronic data from computers, cell phones, and bank records.

Background

In general, the United States has set a very high standard for government conduct in the hope that our privacy would be maintained and that our rights would not be violated. At the very beginning of this nation, the Framers sought to build popular support for the new government by amending the Constitution in 1887 with the Bill of Rights, which included protections against invasive government searches, securing "the Blessings of Liberty to ourselves and our Posterity" (as noted in the Preamble to the U.S. Constitution, 1787). Their belief in such principles as no taxation without representation illustrated their apparent desire to protect themselves against unreasonable government intrusion without legal justification.

It has not always been the law that agents of the government needed a lawfully issued search warrant based upon probable cause and signed by a neutral, detached judicial authority. In the past, without meeting this standard, evidence could be seized and later used in a criminal prosecution. Over the years, however, our legal system evolved to a point where law enforcement officers who violate the law of search and seizure usually find their evidence excluded and any conviction reversed.

The strength of Americans' belief in the sanctity of their homes and privacy is reflected in the words of the U.S. Constitution and its amendments. This document was designed to ensure that actions detested during British rule would not exist in the United States. And although it preserved the interests of the wealthy class of property owners (who else could afford to take six months off to travel to Philadelphia and write a Constitution?), the document also granted enough concessions to small property owners, middle-income merchants, and farmers, to build support for its ratification in the statehouses (see Zinn 2005).

During colonial times, representatives of the Crown routinely invaded citizens' homes; American colonists were subject to the abuses of general warrants, which permitted searches that did not specify the items to be seized or the person or place where they were to be found. An example of a general warrants was the writ of assistance that permitted a British tax collector and the collector's representatives to search colonial homes and other buildings to determine if there were goods present that did not bear the mark of a tax payment. These writs were not based upon probable cause and gave the bearer almost limitless authority. As was noted in *Boyd v. United States* (1886), the writs of assistance were "the most destructive of English liberty, and the fundamental principles of law, that ever was found in an English law book."

The Fourth Amendment to the Constitution is just one response to what the colonists found to be unjust treatment. It reads as follows: "The right of the people to be

secure in their persons, papers, and effects against unreasonable searches and seizures, shall not be violated and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched and the persons or things to be seized."

Legal Decisions

Execution of a Search Warrant

The Fourth Amendment governs the proper execution of a search warrant. Police are generally required to knock and announce their identity and purpose before attempting

THE TYPICAL SEARCH WARRANT

A typical federal search warrant will be issued after a review of the application for the warrant, which will provide the probable cause that the government has for believing the person or item(s) to be seized are located in a particular place. The application is made under oath and lists the facts that the reviewer—a judicial authority—will evaluate in determining whether or not to issue the search warrant. If, upon review, the judge or magistrate finds that there is probable cause, the search warrant it will be authorized. If not, it will be denied.

The typical search warrant contains the following:

- Caption or reference to the name of the court that is issuing the warrant name of the requesting individual (also known as the affiant).
- Description of the place or person to be searched (location must be specific and located in an area where the judicial officer has jurisdiction). This standard of "particularity" requires that the description be sufficiently precise so that the officer executing the warrant can "with reasonable effort ascertain and identify the place intended" (see *Steele v. United States* 1925; *Coolidge v. New Hampshire* 1971; *United States v. Ross* 1982).
- Detailed description of the property to be seized (scope of the search). This requires that the description leave nothing to the discretion of the officers (see *Marron v. United States* 1927).
- When the warrant may be executed (the hours of the day or night), how the warrant may be executed (knock-and-announce or unannounced), and by whom (individual or agency/department).
- Date and signature of the judicial officer who issued the warrant.

The reverse side or second page of the warrant will usually contain information regarding the return of the warrant. This information (the return) will reflect the date of service of the warrant and a list (inventory) of any items that were seized as a result of the search. The return will be certified by the executing individual and returned to the court in a timely manner. A copy of the warrant and a list of the seized items will be left at the location or with the person.

forcible entry (see *Wilson v. Arkansas* 1995). In response to law enforcement concerns about the need for flexibility, the U.S. Supreme Court held that this requirement is governed by a reasonableness standard. In *United States v. Banks* (2003), the Court concluded that a 15- to 20-second interval from the time the officers "knock and announce" until they enter by force was reasonable, given the possibility of destruction of evidence. Situations allowing for unannounced entries include the threat of physical violence or escape (see *United States v. Bates* 1996). Where there has been a violation of the knock-and-announce requirement, without more, the Court recently determined that the evidence should not be suppressed at trial (see *Hudson v. Michigan* 2006).

Exclusionary Rule

Most court decisions have upheld an individual's privacy right. When a search goes beyond the scope of the warrant or is conducted illegally or without a warrant, the defendant will move to have the evidence discovered during the search suppressed. After reviewing the facts surrounding the seizure of the evidence, the court, when appropriate, will support the suppression motion and the items will be excluded from being introduced during the trial. The key case for the exclusionary rule is *Weeks v. United States* (1914) in which the Court recognized that the use of illegally seized evidence against Weeks was a denial of his constitutional rights. In *Wolf v. Colorado* (1949), the Court recognized the importance of an individual's privacy against "arbitrary intrusion by the police"; it also recognized the significance of the *Weeks* decision, which held that "in a federal prosecution the Fourth Amendment barred the use of evidence secured through an illegal search and seizure." *Mapp v. Ohio* (1961) ensured that this right applied not only to federal law enforcement but also to state law enforcement through the due process authority of the Fourteenth Amendment.

The natural extension of the exclusionary rule came with cases involving derivative evidence, called the "fruit of the poisonous tree." In *Silverthorne Lumber Co. v. United States* (1920), the Court determined that evidence derived from an illegal search and subsequent seizure of accounting records (books, papers, and other documents) could not be used; it denied the government any use of the material gathered as a result of a "forbidden act" (see also *Silverman v. United States* 1961). The Court found that the wrong committed by the government tainted all the secondary evidence flowing from that illegality and was inadmissible as well. There are also cases where the Court has found that the wrong committed by the government is so attenuated or distanced from the illegally obtained evidence that such evidence has been accepted at trial (see *Nardone v. United States* 1937; *Wong Sun v. United States* 1963).

Exceptions

There are numerous exceptions to the criteria for the issuance of warrants and the admission of evidence as set forth in the Bill of Rights. Although several of the Supreme

Court's decisions have upheld the constitutional requirements, other case decisions have reduced the strength of a warrant requirement. Several exceptions to the strict requirements of search warrants are reflected in the following paragraphs:

Inevitable discovery and independent source: In *Nix v. Williams* (1984), the Court determined that the efforts of law enforcement personnel would likely have located the evidence (a body) and admitted it despite a constitutional violation (illegal questioning). In *Murray v. United States* (1988), the Court found that law enforcement personnel obtained evidence from an independent source in addition to the illegal source; it chose not to remove the evidence from admission. The independent source in this case was seen as a cure to the constitutional violation regarding the evidence.

Good faith exception: The courts have also decided not to penalize a law enforcement officer who acted in good faith to enforce a warrant that was no longer valid (see *United States v. Leon* 1984; *Massachusetts v. Sheppard* 1984; *Arizona v. Evans* 1995).

Incident to arrest: In *Chimel v. California* (1969), the Court rejected a search of the defendant's entire house without a search warrant; but incident to the defendant's arrest it did permit a search of the immediate area for weapons and other evidence. The Court found in *United States v. Robinson* (1973) that with a search warrant, a law enforcement officer could search the entire body of a defendant incident to the defendant's lawful custodial arrest. In *New York v. Belton* (1981), the Court permitted a search of the entire passenger compartment of an automobile incident to the lawful arrest of an occupant or recent occupant (see also *Von Cleef v. New Jersey* 1969; *Thornton v. United States* 2004). In *Maryland v. Buie* (1990), the Court found that as a "precautionary measure," law enforcement officers could conduct a search or protective sweep of the entire premises (adjoining the place of arrest) without a warrant to ensure a "reasonably prudent officer" that the area did not harbor danger that might place the officer's safety in jeopardy.

Stop and Frisk

In *Terry v. Ohio* (1968), the Court accepted a limited invasion of a person's privacy by allowing a pat-down of a subject's outer clothing. The Court determined that a law enforcement officer had the right to conduct a pat-down of an individual who was the subject of an investigative stop when the officer had a reasonable concern for his or her safety. The "outer clothing" was determined to include the passenger compartment of an automobile in *Michigan v. Long* (1983).

Plain touch or plain feel of an item incident to a "Terry stop" was noted in *Minnesota v. Dickerson* (1993). In this case the law enforcement officer, who had a reasonable concern for his safety, was legally permitted to conduct a pat-down of the defendant's outer clothing for weapons; the officer felt what he immediately recognized to be a lump of crack cocaine. The Court noted that when the "contour or mass makes its identity immediately apparent" to the law enforcement officer, there is no violation of the Fourth Amendment (*Minnesota v. Dickerson* 1993, at 376; see also *Coolidge v. New Hampshire* 1971, which

supported the seizure of items of an incriminating nature that were not specifically named in the search warrant, but were in "plain view"). The key behind the plain touch/plain feel doctrine is that the law enforcement officer must be in a place he or she is legally authorized to be and conducting himself or herself in a lawful manner.

Warrantless Automobile Searches

Warrantless searches of automobiles, based on the Court's holding in *Carroll v. United States* (1925), were found constitutional. The Court determined that when law enforcement officers had probable cause to believe that the vehicle contained contraband, they could search the vehicle without a court-authorized search warrant. The key behind this search is the inherently mobile nature of the automobile and the potential for the destruction of evidence if not immediately seized; this has become known as the *Carroll doctrine*.

However, in *Scher v. United States* (1938), the Court also determined that a vehicle parked in an open garage by the defendant was still subject to a warrantless search by law enforcement officers applying the Carroll doctrine (see also *Chambers v. Maroney* 1970; *Michigan v. Thomas* 1982; *United States v. Ross* 1982; *California v. Carney* 1985; *Maryland v. Dyson* 1999). In *United States v. Tartaglia* (1989) the Court found the same exigent circumstances present in a train's roomette and accepted the application of the Carroll doctrine (see also *Cardwell v. Lewis* 1974 regarding exigent circumstances).

Close to the issue of searches is conducting an inventory. An inventory of a vehicle that has been impounded should not be confused with the issue of a search. Although there is less of an expectation of privacy, an inventory is conducted to safeguard the contents of a vehicle and protect the law enforcement officers from liability for any purported loss of its contents. Inventories are an accepted practice and generally must be part of the standard procedures for that agency or the action could be seen as an illegal search (see *South Dakota v. Opperman* 1976).

Emergencies and Hot Pursuit

In both emergency situations and the hot pursuit of a suspect, law enforcement officers may legally enter the private premises of an individual. In each situation, the law enforcement officer is legally permitted to be in that place without a search warrant. The officer may be responding to a 911 call for assistance or see what he or she believes to be an emergency, or the officer may be in hot pursuit of a suspected felon (murder, robbery, etc.) and has a reasonable basis to enter the premises. Upon entry for this lawful purpose, any evidence that the officer observes in plain view cannot be ignored. This would include weapons used in a robbery, drugs, and so on (see *Warden v. Hayden* 1967; *Mincy v. Arizona* 1978; *McDonald v. United States* 1948; *United States v. Gillenwaters* 1989).

Open Fields

In *Hester v. United States* (1924), the Court noted that the "special protection accorded by the Fourth Amendment to the people in their 'persons, houses, papers and effects' is not extended to the open fields." But the Court did not change the rule that a warrant was needed to search the house or its curtilage (see also *Oliver v. United States* 1984; *See v. City of Seattle* 1967; *California v. Ciraolo* 1986; *United States v. Dunn* 1987; *Florida v. Riley* 1989). Although not the same as an open field, the Court has determined that search warrants were not required in common or public areas, where individuals have less of an expectation of privacy (see *United States v. Nohara* 1993).

Consent

In any case where a search warrant is not present, an individual can always consent to a search. This would not violate the defendant's Fourth Amendment rights unless the consent was not "knowing" and "voluntary." *Schneckloth v. Bustamonte* (1973) noted that if there were police coercion, the consent would not be voluntary. Fraud or other forms of subtle coercion by a law enforcement officer would lead to the loss of the voluntariness of the consent (see also *Bumper v. North Carolina* 1968).

Electronic Eavesdropping

The subtle issue of an electronic invasion of privacy or searching without a warrant was once a simple issue. In *Olmstead v. United States* (1928), the Court determined that electronic eavesdropping (as in telephone communications) was not covered by the Fourth Amendment. The focus at that time was on the home/building and the concept of physical trespassing and not the individual's privacy. However, this changed with *Katz v. United States* (1967). The Court found that an individual could have a privacy expectation even when he or she was using a public telephone booth. It concluded that a search warrant would be required to intercept electronic communications. In other cases, the Court has looked closely at various means used to enhance what can be seen from outside a building—the use of which would result in an invasion of privacy without a warrant. In *Kyllo v. United States* (2001), the Court determined that the use of thermal imaging technology to determine activities inside a person's home was a clear invasion of his or her privacy and hence a warrantless search.

Other Investigations

Although this section on search warrants is directed at warrants related to criminal investigations, it should be noted that the Foreign Intelligence Surveillance (FISA) Court is also authorized to issue orders similar to search warrants that are applicable in intelligence investigations. Congress passed the Foreign Intelligence Surveillance Act (FISA) in 1978 in an effort to ensure that Fourth Amendment rights and civil liberties would

not be abridged by the use of electronic surveillances, especially in conducting national security investigations (*United States v. United States District Court* 1972). However, there is a question of whether this has been successful (see *ACLU v. NSA* 2006).

Warrantless Wiretapping

Although President George W. Bush's position had been that it was not possible to conduct the surveillance program according to the FISA ("NSA Eavesdropping Was Illegal, Judge Says" 2010) and he argued that a warrant was not necessary because of the "war powers" provided to him in the Constitution and by the Congress, the American Civil Liberties Union (ACLU) challenged this position in U.S. District Court. In *ACLU v. NSA* (2006), the ACLU disputed the legality of the secret NSA program, commonly known as the Terrorist Surveillance Program (TSP). The district court held, in part, that the TSP violated the First and Fourth Amendments, the Constitution, and statutory law and then granted a permanent injunction regarding the continued operation of the TSP.

In a January 17, 2007, letter to Senators Patrick Leahy (chairman, Committee on the Judiciary) and Arlen Specter (ranking minority member, Committee on the Judiciary), Attorney General Gonzales stated: "any electronic surveillance that was occurring as part of the Terrorist Surveillance Program will now be conducted subject to the approval of the Foreign Intelligence Surveillance Court." He also wrote that on January 10, 2007, a FISA Court judge "issued orders authorizing the Government to target for collection international communications into or out of the United States where there is probable cause to believe that one of the communicants is a member or agent of al-Qaeda or an associated terrorist organization."

Further, in April 2010, on the basis of a case brought by an Oregon Islamic foundation that was being monitored by the government, a federal district judge ruled that the Bush administration had overstepped its authority in undertaking warrantless wiretapping. Among the comments in the judge's 45-page ruling was that the "theory of unfettered executive-branch discretion" created an "obvious potential for abuse" ("NSA Eavesdropping" 2010).

See also **Patriot Act; Surveillance—Technological (vol. 4)**

Legal Citations

ACLU v. NSA, 438 F. Supp. 2d 754 (D. Mich. 2006).
Arizona v. Evans, 514 U.S. 1 (1995).
Boyd v. United States, 116 U.S. 616, 625 (1886).
Bumper v. North Carolina, 391 U.S. 543 (1968).
California v. Carney, 471 U.S. 386 (1985).
California v. Ciraolo, 476 U.S. 207 (1986).

Cardwell v. Lewis, 417 U.S. 583 (1974).
Carroll v. United States, 267 U.S. 132 (1925).
Chambers v. Maroney, 399 U.S. 42 (1970).
Chimel v. California, 395 U.S. 754 (1969).
Coolidge v. New Hampshire, 403 U.S. 443 (1971).
Florida v. Riley, 488 U.S. 445 (1989).
Hester v. United States, 265 U.S. 57, 59 (1924).
Hudson v. Michigan, 547 U.S., 126 S. Ct. 2159 (2006).
Katz v. United States, 389 U.S. 347 (1967).
Kyllo v. United States, 533 U.S. 27, 34, 40 (2001).
Mapp v. Ohio, 367 U.S. 643 (1961).
Marron v. United States, 275 U.S. 192 (1927).
Maryland v. Buie, 494 U.S. 325 (1990).
Maryland v. Dyson, 527 U.S. 465 (1999).
Massachusetts v. Sheppard, 468 U.S. 981 (1984).
McDonald v. United States, 335 U.S. 451 (1948).
Michigan v. Long, 463 U.S. 1031 (1983).
Michigan v. Thomas, 458 U.S. 259 (1982).
Mincy v. Arizona, 437 U.S. 385 (1978).
Minnesota v. Dickerson, 508 U.S. 366 (1993).
Murray v. United States, 487 U.S. 533 (1988).
Nardone v. United States, 308 U.S. 338 (1937).
New York v. Belton, 453 U.S. 454 (1981).
Nix v. Williams, 467 U.S. 431 (1984).
Oliver v. United States, 466 U.S. 170 (1984).
Olmstead v. United States, 277 U.S. 438 (1928).
Scher v. United States, 305 U.S. 251 (1938).
Schneckloth v. Bustamonte, 412 U.S. 218 (1973).
See v. City of Seattle, 387 U.S. 541 (1967).
Silverman v. United States, 365 U.S. 505 (1961).
Silverthorne Lumber Co. v. United States, 251 U.S. 385 (1920).
South Dakota v. Opperman, 428 U.S. 364 (1976).
Steele v. United States, 267 U.S. 498, 503 (1925).
Terry v. Ohio, 392 U.S. 1 (1968).
Thornton v. United States, 124 U.S. 2127 (2004).
United States v. Banks, 124 S. Ct. 521 (2003).
United States v. Bates, 84 F. 3d 790 (6th Cir., 1996).
United States v. Dunn, 480 U.S. 294 (1987).
United States v. Gillenwaters, 890 F. 2d 679 (4th Cir., 1989).
United States v. Leon, 468 U.S. 897 (1984).
United States v. Nohara, 3 F. 3d 1239 (9th Cir., 1993).

United States v. Robinson, 414 U.S. 218 (1973).
United States v. Ross, 456 U.S. 798 (1982).
United States v. Tartaglia, 364 F. 2d 837 (D.C. Cir., 1989).
United States v. United States District Court, 407 U.S. 297 (1972)
Von Cleef v. New Jersey, 395 U.S. 814 (1969).
Warden v. Hayden, 387 U.S. 294 (1967)
Weeks v. United States, 232 U.S. 383, 398 (1914).
Wilson v. Arkansas, 514 U.S. 927 (1995).
Wolf v. Colorado, 338 U.S. 25, 28 (1949).
Wong Sun v. United States, 371 U.S. 471 (1963).

Further Reading

Bloom, Robert M., *Searches, Seizures, and Warrants: A Reference Guide to the United States Constitution.* Westport, CT: Praeger, 2003.
Bodenhamer, David J., *Our Rights.* New York: Oxford University Press, 2007.
Ferdico, John, *Criminal Procedure for the Criminal Justice Professional,* 10th ed. Belmont, CA: Thomson Wadsworth, 2008.
Ingram, Jefferson L., *Criminal Procedure, Theory and Practice,* 2d ed. Upper Saddle River, NJ: Pearson/Prentice Hall, 2008.
Ivers, Greg, and Kevin T. McGuire, *Creating Constitutional Change: Clashes over Power and Liberty in the Supreme Court.* Charlottesville: University of Virginia Press, 2004.
Moore, Robert, *Search and Seizure of Digital Evidence.* New York: LFB Scholarly Publishing, 2005.
Newman, Bruce A., *Against That "Powerful Engine of Despotism": The Fourth Amendment and General Warrants at the Founding and Today.* Lanham, MD: University Press of America, 2007.
"NSA Eavesdropping Was Illegal, Judge Says." *Washington Post* (April 1, 2010).
Zinn, Howard, *A People's History of the United States: 1492–Present.* New York: Harper Perennial, 2005.

SERIAL MURDER AND MASS MURDER

Charles I. Brooks and Michael A. Church

Serial killers murder again and again, sometimes over many years or even decades if they are not caught. Law enforcement officials, criminologists, psychologists, and sociologists all deal with some fundamental questions about serial killers:

- Do they leave "signatures," telltale signs unique to their style of killing?
- Do these killers have a common personality type that makes profiling them easier?
- Do serial killers differ from mass murderers?
- Can we prevent the development of a serial killer?

In considering these questions, we restrict our discussion to male perpetrators, because most serial killers are men. There are cases of female serial killers, but most theories and analyses are based on men. We focus here on representative research but also offer some clinical insights regarding prevention.

Do Serial Killers Leave "Signatures"?

Movies add to the suspense of a case by having the killer leave a characteristic clue with the body, something that tells investigators that the murderer has killed before. A perpetrator may, for instance, bury his victims face down and naked, with a stocking tied around the neck. These clues, called signatures, can include a variety of things unique to the killer. Initials might be carved in the body or a poem might be pinned to the body. A signature can also include evidence of a particular behavior involved in the killing. For instance, some perpetrators may have sex with the dead victim and others may require oral sex prior to the killing. Some may hide the body.

Douglas and Munn (1992a, 1992b) refer to a signature as a "calling card." These signatures can be specific behaviors or objects, but in either case they appear unique to the murderer. When such signatures are present, police are confident that the same killer is involved in the present and previous murders. Some investigators say that these signatures can change over time and become more developed or sophisticated throughout the murderous sequence. For example, the degree of postmortem mutilation may increase across victims.

Other law officials point out, however, that serial killers do not leave signatures in any consistent fashion, and signatures should not be considered a part of the puzzle. Serial killers show considerable variation in many aspects of their crimes, especially when the situation is different from victim to victim, as when a third party unexpectedly shows up during commission of the crime. Also, victims can vary greatly in how suspicious they may be of the perpetrator or how much control the attacker may need to use (e.g., gagging or binding the victim). Some serial murderers develop new strategies and techniques to decrease the probability of failing or being caught.

Bateman and Salfati (2007) analyzed murder cases in the files of the Homicide Investigation and Tracking System in Seattle, Washington. All the cases had been solved, and all involved the killing of at least five people. The investigators analyzed 450 murders. Victims included both children and adults, and the average age of the offender at the time of arrest was 30 years.

The investigators coded the cases according to whether crime scene behaviors did or did not occur, classified across six categories: body disposal, planning and control, mutilation, sexual offenses, theft, and weapon type. The researchers determined how frequently and consistently each of 35 crime scene behaviors occurred in the 450 serial homicides. The following behaviors occurred frequently (in at least 50 percent of the cases):

- Having a weapon at the scene (93 percent)
- Having sex after the killing (84 percent)
- Stealing something other than clothing (77 percent)
- Leaving body nude (77 percent)
- Vaginal sex (72 percent)
- Hiding the body (68 percent)
- Restraining the victim (66 percent)
- Leaving semen at the scene (63 percent)
- Using a knife to kill the victim (63 percent)
- Moving the body after the killing (61 percent)
- Torturing the victim (56 percent)
- Sexual assault (52 percent)

The following behaviors occurred consistently (at least 80 percent of the cases):

- Having a weapon at the scene (93 percent)
- Destroying evidence (93 percent)
- Bringing a crime kit to the scene (89 percent)
- Vaginal sex (88 percent)
- Theft (88 percent)
- Moving the body (87 percent)
- Torturing the victim (86 percent)
- Having sex after killing (84 percent)
- Hiding the body (84 percent)
- Oral sex by victim (85 percent)
- Using a ligature to kill the victim (84 percent)
- Restraining the victim (83 percent)
- Using a knife (82 percent)

The fact that so many of these behaviors occurred speaks against the notion that individual killers leave unique signatures. Individual offenders often showed consistency in general style, such as body disposal, mutilation, or weapons use, but the specific method of disposal, mutilation, and so on showed considerable variation. In other words, no individual profile emerged in most of the cases examined, and attempts to link a specific murder style to a specific serial killer were not fruitful.

The idea of unique signatures probably evolves because typically one serial killing case is occupying police in a given place at a given time. Thus, over a one-year period, there may be similar-age victims, all raped prior to killing, all left nude, and all stabbed with a knife. Such consistency points to signatures, but all these behaviors can be expected to occur with some consistency over several perpetrators. Thus, if both serial killers and other murderers are active in a given place simultaneously, the similarity of murders committed by the killers may suggest that one killer is involved.

Analysis of individual cases shows little evidence for a consistent profile. An individual offender might show general consistency in behaviors like body disposal, mutilation, or weapon use, but the specific method of disposal or mutilation, or the specific weapon, might show considerable variation. Serial killers adapt to different situations in killing their victims. Different killings may also reflect different moods of the killer, a need for novelty, or a slightly different motivation for killing one victim rather than another. Thus, analysis of individual behaviors to link homicide with a single murderer has not been supported by research published to date.

Do Serial Killers Have a Common Personality Type?

In our post–September 11 world, people worldwide have become more aware of terrorist threats and ways to prevent them. One prevention method used by law enforcement agencies in many countries is *profiling,* especially with respect to appearance and behavior. The question here is quite simple: In a particular place, such as an airport, can we observe the overt behavior of an individual who has specific physical features and decide that this person poses a risk? In the previous section, we noted limitations in trying to profile the serial killer's behavior by concentrating on unique crime signatures. Does the same difficulty occur if we use personality and background profiling to identifying serial killers?

Do serial killers show common *personality* dynamics? Are they all insecure introverts? Are they characteristically hostile or charming? Do they show similar *backgrounds?* Are there similar family, economic, and social-status factors common to serial killers? These questions involve performing critical analyses of these murderers from multiple points of view. Researchers look at childhood experiences, emerging behavior patterns during childhood and adolescence, and adult characteristics that can lead to these killers' destructive behavior.

It is important to remember that researchers look for links and relationships between things like childhood experiences and later adult behavior. The problem, of course, is that many adults who are not serial killers may also show some of those factors in their own backgrounds. By the same token, someone walking through an airport may show all the behavioral and physical signs of being a potential terrorist but may be a law-abiding citizen who has no intention of engaging such behavior. When we do profiling, we must always be aware of potential errors (false positives) in our analyses.

Schlesinger (2000) lists four types of serial killers based on who they kill and their motivation for doing so:

- The *visionary* is a psychotic who operates in a world of delusional thinking. The killer may believe, for instance, that he is called by God to rid the world of evil people.
- The *mission-oriented* killer is driven to kill only certain types of people, such as prostitutes or young single women.

- The *hedonistic* killer murders for the thrill of it or for sexual gratification.
- The *power control* killer needs to demonstrate his control over the victim. Killing is an act of exerting power and control, which brings this killer gratification.

Even though serial killers may fit into different categories with respect to victim characteristics and personal motivation, there are also numerous similarities that emerge across different killers.

- They tend to come from dysfunctional families where they were neglected and abused.
- Their fathers are typically absent or controlling and their mothers are usually rejecting, punishing, smothering, seductive, and/or controlling.
- Many are illegitimate or adopted and some are sons of prostitutes.
- They often abuse alcohol or drugs.
- As children and adolescents, they often develop a pattern of killing animals, especially cats.
- They show an extremely strong sex drive, and victim sexual degradation and humiliation are often a part of the killing ritual. They may have strongly violent sexual fantasies.
- They are typically preoccupied with death, blood, and violence.
- They show little guilt over their actions.
- They seldom kill their wives or children.

Knight (2006) notes that a major personality theme in nearly all serial killers is *narcissism.* Narcissists show extreme personality characteristics:

- They feel entitled to whatever they may want.
- They are very possessive, jealous, envious, and need others to admire them.
- On the outside they can act very arrogant, but inside they are insecure and fragile.
- They try to cope with reality by controlling and manipulating others, who are mere objects to them, like chess pieces, which they use to bolster their fragile sense of self.
- They feel empty, helpless, and vulnerable.

Arrigo and Griffin (2004) place great importance on the quality of parent-child relationships, particularly involving the mother, in the development of a serial killer. The narcissistic serial killer does not receive sufficient attention and love from his parents and develops feelings of inadequacy, shame, low self-esteem, and pathological narcissism. According to this model, the roots of serial killing develop in early childhood. Murderous actions are designed to compensate for inner insecurities and fears of rejection, being alone, and lack of control. When those tendencies combine with fantasies, a preoccupation with violence and death, and a huge sexual drive, the risk of serial killing increases significantly.

Infants and children attach to their caretakers in order to survive. Even if a parent-child relationship is dysfunctional, it is better than no relationship at all. Thus, infants will sacrifice their own needs and even attach to "bad" parents. The sole basis of the attachment becomes filled with anxiety because the infant fears being rejected by the bad parent. Thus, these infants grow up fearing relationships with other people, have difficulty relating to others, and become socially isolated. These tendencies are extreme in serial killers. Other people must be exploited to satisfy the killer's narcissistic needs and temporarily boost his self-esteem, thus compensating for feelings of shame and inadequacy. In a sense, the serial killer has a lot of self-hatred, and that hatred is displaced onto the victims.

Childhood abuse and rejection contribute to the evolution of a serial killer. Many experienced physical, sexual, and/or psychological abuse as children. These abuses produce feelings of powerlessness and lack of control. Killing gives them an illusion of having some control and impact on the world. When sex is involved in the serial murders, the act is not sexual per se but combines sex with power and revenge motives. Some psychologists say the serial killers are attacking the people who are responsible for their original pain and suffering. In effect, every stab in the flesh of a victim represents rage against the terror and pain experienced in childhood. Therefore some serial killers may symbolically be killing one or both of their hated parents. According to this theory, they choose victims who represent everything the killer hates about himself and his childhood.

Schlesinger (2000) believes that humiliation and shame play a large role in the personality of many serial murderers and says the origin of this shame is often the result of some sexual conflict with the mother. The backgrounds of many serial killers show a mother who was promiscuous, seductive, incestuous, and/or abusive. As a result, the killer is preoccupied with maternal sexual conduct and morality, which makes him feel ashamed of the mother. The killer then transforms this shame into rage and kills to erase painful memories from childhood. Naturally, the killing does not erase the memories, and the result is more killing. Many killing sprees are spurred by rejection from a woman. This rejection only intensifies the feelings of shame about the mother but also helps transform feelings of inadequacy and insecurity into rage directed at women.

Many serial killers show a history of torturing and/or killing animals. Psychologists feel that the killer learns quickly that these relatively helpless creatures are perfect victims that allow the killer to feel a sense of power and control. Animals give the developing serial killer an opportunity to displace aggression and feel a sense of power and control he cannot easily find in other areas of life. These killings help hide strong feelings of rejection, inadequacy, and powerlessness.

A combination of lack of love, severe physical/sexual/psychological abuse, and predisposing personality traits all help create a lethal combination that, given certain triggering events, can erupt into killing. In the case of the serial killer, the killing becomes pleasurable and difficult to stop. Unfortunately the innocent become victims because,

in the mind of the killer, they symbolically represent early tormentors of rejection and abuse.

In conclusion, the backgrounds of serial killers show similarities in development of a personality pattern involving pathological narcissism. Remember, however, that although these backgrounds and traits can be warning signs of a potential adult serial killer, most individuals who grow up unloved and rejected in childhood do not become serial killers. By the same token, when a 10-year-old tortures or kills animals, those actions may signal that all is not well, but they do not guarantee the boy will be an adult serial killer. When we see warning signs and say, "There goes a future serial killer," there is the possibility of a *false positive,* which refers to a prediction that does not take place. The possibility of false positives must make us cautious in predicting someone's future behavior.

Are Serial Killers Different from Mass Murderers?

It has been 11 years since the Columbine High School mass killings in the United States, and three years since the Virginia Tech University massacre. Instances of mass murder in the United States increased noticeably during the first four months of 2009. From New York to North Carolina to Alabama and others, the number of victims killed by individuals on a shooting rampage has been high. Because these acts of violence appear to occur randomly, they tend to send shockwaves through the communities where they occur, as do serial killings. Anyone may be either a potential attacker or victim, thus generating a great deal of fear.

Tragic events like serial killings and mass murders cause us to look deeply into the dynamics of the killers' minds. When we do so, a fundamental question arises: Are the psychological dynamics of the serial killer and the mass murderer the same, or are there fundamental differences in "the psychology" of these two types of killers? There are those who argue that a murderer is a murderer, and that whether serial or mass, the killer is a sociopath (also called psychopath), and there are no significant differences between serial and mass murderers. Others, however, say there are definite differences in the two types of killers, and recognizing these differences is essential to any attempt at profiling them.

Criminologist Eric Hickey (1997) notes some clear differences in cases of mass murderers and serial killers:

- Mass murderers are usually either caught or commit suicide soon after the act. Serial killers may elude the authorities for years.
- Community reaction to a mass murder is focused, and the killer is typically seen as a deranged person who suddenly "exploded." Serial killings persist over a longer period of time and thus generate more public fear. The serial killer is seen as more tricky and clever than deranged.
- The serial killer individualizes his victims, whereas the mass murderer kills large groups of people at once.

- Mass murderers seldom commit a second mass murder. Conversely, serial killers rarely commit mass murder.
- The serial killer is usually in close proximity to victims, literally on top of them and attacking at close range with a knife, hammer, or choking device. Mass murderers maintain a distance from their victims and resort to efficient automatic weapons and even explosives that increase the body count.

Given these overt differences between serial and mass killings, do we find similar differences between the personalities and backgrounds of these killers? Do different psychological pictures emerge?

As noted earlier, serial murderers are usually men who suffer from extreme narcissism, sexual sadism, and/or antisocial personality disorder (sociopaths/psychopaths). Generally they are not psychotic. That is, they know who they are, where they are, what year it is, and so on. However, they have typically had traumatic sexual experiences while very young and have violent sexual fantasies as adults, probably as a result of these early traumas.

Serial killers show no remorse for their acts and do not have much of a value system. They generally use a weapon like a knife, hammer, or choking device to kill their victims. Prior to the murder, they usually show some warning signs in their behavior:

- Breaking and entering, but not to steal
- Engaging in unprovoked attacks and general mistreatment of women
- Expressing hatred, contempt and sometimes fear of women
- Showing a fetish for female undergarments
- Committing violence against animals (especially cats)
- Showing confusion over sexual identity
- Showing sexual inhibitions and preoccupation with rigid standards of morality

Mass murderers, also generally men, show a different personality and behavior profile.

- They are usually socially isolated and have very poor social skills.
- They are typically uncomfortable in social situations, tending to have few friends and a weak family support system.
- They are typically very angry men whose hostility has built up over a long period of time. Thus, they are carrying around a huge amount of rage.
- They show paranoid thoughts that have been with them for some time. These thoughts that "others are out to get me" strengthen their rage and make them ticking time bombs.

The mass murder takes place when some event tips the scale and the pent-up rage can no longer be held in check. Such events might be losing a job, being rejected by a wife or girlfriend, or being criticized one too many times by others. On April 4, 2009, James

Harrison of Graham, Washington, killed his five children and then himself after discovering that his wife was leaving him for another man. The case of Jiverly Wong, who killed 13 people and then himself in a rampage in Binghamton, New York, on April 3, 2009, shows how paranoid thoughts can contribute to the act. Prior to carrying out his murders, Wong wrote in a suicide note that the police were watching him and had even entered his house and touched him while he slept in his own bed.

There are important differences between serial killers and mass murderers in both the causes of their behavior and their actions prior to killing. What they do have in common, however, is a poorly developed social conscience, the ability to kill without remorse, and displacing their internal rage onto strangers and innocent victims. Both types of killers are also basically predators who plan their heinous acts in a purposeful fashion.

Can We Prevent Serial Killings and Mass Murders?

Both serial killers and mass murderers plan their actions before carrying them out. Both show definite signs of emotional distress in social interactions. The opportunity for profiling and preventing their actions seems to be present. We must recognize, however, that it is impossible to understand and predict individual human behavior in all situations.

- Genetic and biological factors (e.g., brain damage or mental illness) can be a major causes of serial killing and mass murder, and these factors are not fully understood or under our direct control.
- We have little influence over how parents establish the emotional atmosphere in the home and how they treat their children on an hour-by-hour, day-by-day basis. Children and young adults can develop disruptive, violent, and sociopathic patterns of behavior long before they come to our attention.
- We cannot prevent the domestic or job events that can push the mass murderer into action.

In spite of these problems, law enforcement officials and mental health workers can be vigilant to many warning signs, "markers," in individuals at risk for becoming killers. These markers include but are not limited to the following:

- An abnormal mother-child bond
- An absent and/or abusive father
- Receiving physical and/or sexual abuse from a parent or family member
- Torturing and/or killing cats, dogs, and other animals
- Difficulties relating to peers and general antisocial behavior during adolescence
- Violent sexual fantasies involving specific others (usually women)
- Sexual identity confusion

- Sociopathic/psychopathic patterns showing lack of guilt or remorse over actions
- Paranoid thinking that "someone is out to get me"
- Domestic problems and/or getting fired from work
- Increasing social isolation

On September 25, 1982, in Wilkes-Barre, Pennsylvania, George Banks went on a killing rampage. He murdered 13, including five of his own children and the four women who bore them. Banks was caught, tried, convicted of 12 counts of first-degree murder, and remains in jail. Just days before his killing spree, Banks was evaluated at a local counseling center. He showed clear symptoms of paranoid schizophrenia but was not hospitalized. This is the type of case that could be preventable.

One reason for studying both serial killers and mass murderers is to be able to identify them in advance—to be able to predict their behavior before it occurs. In a perfect world we would have reliable "markers" that would warn us about a person, and we could take steps to prevent the killing from occurring. Specifying these "markers" would be a part of a standard profiling protocol. Unfortunately, to profile and predict who will kill before they do so is an extremely difficult undertaking.

See also **Death Penalty; Insanity Defense; School Violence**

Further Reading

Arrigo, B. A., and A. Griffin, "Serial Murder and the Case of Aileen Wuornos: Attachment Theory, Psychopathy, and Predatory Aggression." *Behavioral Sciences and the Law,* 22 (2004): 375–393.

Bateman, A. L., and C. G. Salfati, "An Examination of Behavioral Consistency Using Individual Behaviors or Groups of Behaviors in Serial Homicide." *Behavioral Sciences and the Law. 25* (2007): 527–544.

Douglas, J. E, and C. Munn, "Violent Crime Scene Analysis: Modus Operandi, Signature, and Staging." *FBI Law Enforcement Bulletin.* February (1992a): 1–10.

Douglas, J. E., and C. Munn, "Modus Operandi and the Signature Aspects of Violent Crime." In *Crime Classification Manual,* ed. J. Douglas et al. New York: Lexington Books, 1992b.

Hickey, E. R., *Serial Murderers and Their Victims.* New York: Wadsworth, 1997.

Knight, Z., "Some Thoughts on the Psychological Roots of the Behavior of Serial Killers as Narcissists: An Object Relations Perspective." *Social Behavior and Personality* 10 (2006): 1189–1206.

Knight, Z., "Sexually Motivated Serial Killers and the Psychology of Aggression and 'Evil' within a Contemporary Psychoanalytical Perspective." *Journal of Sexual Aggression* 13 (2007): 21–35.

Nichols, D. S., "Tell Me a Story: MMPI Responses and Personal Biography in the Case of a Serial Killer. *Journal of Personality Assessment 86* (2006): 242–262.

Ramsland, K., *Inside the Minds of Mass Murderers.* Westport, CT: Praeger, 2005.

Ramsland, K., *Inside the Minds of Serial Killers.* Westport CT: Praeger, 2006.

Schlesinger, L. B., *Serial Offenders: Current Thought, Recent Findings.* Boca Raton, FL: CRC Press, 2000.

SEX-OFFENDER REGISTRIES

Jim Thomas and Will Mingus

Since 1996, federal, state, county, and municipal legislation has required convicted sex offenders to register with law enforcement agencies and has imposed escalating restrictions on the lives of the offenders. These expanding restrictions and the growing number of registered sex offenders, nearly 705,000 in the United States as of December 2009, have led some observers to examine the unanticipated consequences of registries as harmful to ex-offenders, their families, and their communities. Recognizing the unanticipated outcomes of registries is only one of the four more prominent controversies revolving around sexual offender registries. The other three controversies pertain to issues of: defining the term *sex offender,* coping with reentry problems, and questioning whether or not registries work or are effective in keeping children safe from predators.

For example, consider this: When 16-year-old Traci Lords became an immediate porn star in 1984 in the commercially successful X-rated video *What Gets Me Hot,* she had lied about her age to get the part. If, today, you retained a copy of her early videos or viewed it in the privacy of your home or at a party, you could be convicted of child pornography. Or this: Chicago police checked a halfway house for released felons to determine whether registered sex offenders had complied with state law to provide a valid address. A man wearing a bathrobe stood up and began screaming, "I'm a murderer! I'm a murderer!" He preferred the stigma of being a killer to that of being a sex offender (Sheehan 2006). So which would a person rather be: a murderer, or a 20-year-old college male caught watching the original Traci Lords video, which under current state laws could lead to prosecution, stigma as a pedophile, and possible lifelong registration as a sex offender?

From the scarlet letter worn by the adulteress in Hawthorne's novel to the Hitlerian pink and gold stars forced on gays and Jews in Nazi Germany, societies have traditionally identified their pariahs with public symbols of stigma. In the past two decades, the United States has witnessed a similar rise in public identification and increased stigmatization of social pariahs: sex offenders. In most cases, unlike the earlier symbols that pariahs displayed on their bodies or property, the new sign is borne digitally through online registries that are easily accessible to the public worldwide across the Internet. In other cases, offenders may wear electronic monitoring devices to allow law enforcement personnel to keep tabs on them.

Background

Sex-offender registries are relatively new. California was the first state to enact tracking legislation in 1947, and only five states required convicted sex offenders to register with local law enforcement prior to 1994. Since then, in response to several highly dramatic and media-grabbing murders of children in the early 1990s, Congress passed the Jacob

Wetterling Crimes against Children Act (Bureau of Justice Assistance 2006), providing financial incentives for states to comply with federal guidelines to establish registries at state and local levels. The act was the result of the disappearance of 11-year-old Jacob Wetterling in Minnesota, who, on returning home from a convenience store with a friend, was abducted by an armed masked man.

While they were investigating his disappearance, police discovered that nearly 300 known sex offenders were living in the counties surrounding Jacob's home (Scott and Gerbasi 2003). Although police never established a link between Jacob's abductor and any convicted sex offenders, public attention became focused on sex offenders residing nearby. This opened the legislative floodgates to a subsequent deluge of registry laws. Even though it specified minimum criteria for states to follow, the act encouraged states to enact more stringent legislation and provided the model for disclosing offender information to the public.

In the same year that the Jacob Wetterling Act was passed, another high-profile case further fueled the fears of an already angered public, triggering more legislation. Seven-year-old Megan Kanka disappeared from her New Jersey neighborhood on July 29, 1994. The door-to-door search for her eventually led police to a twice-convicted sex offender who had recently moved in across the street. There had been rumors about the offender and his two housemates, but no one was aware that all three were convicted sex offenders. The offender confessed to Megan's rape and murder and led authorities to her body.

In response, New Jersey passed Megan's Law, the first major state registration legislation. The law required public disclosure of the names, photographs, and other personal information of sex offenders. In 1996, the federal Jacob Wetterling Act was amended to incorporate Megan's Law, requiring states to inform the public of sex offenders living in neighborhoods and near schools (Levenson and Cotter 2005). Although states have individual names for their registry legislation, usually named after a child victim who inspired it, they have become known collectively as "Megan's Laws." Since 1996, all states have complied with "Megan's Law" requirements; currently there are hundreds of overlapping governmental and private registries and databases containing the names and personal information of adjudicated sex offenders (Logan 2003).

To date, the primary legal challenges include the constitutionality of releasing offenders' private information to the public; the restrictions in living accommodations; and the retroactive requirement that offenders convicted and released prior to the enactment of registry laws be required to register. In general, the U.S. Supreme Court has upheld both the constitutionality of the registries and most of the provisions.

One of the most significant challenges to registries was to the requirement that offenders who had served their time, even decades prior to the enactment of registry laws, be required to register. This requirement, it was argued, violated the Constitution's ex post facto clause, whereby a law passed after the commission of an offense may not increase the punishment after the offense has occurred. However, in 2003, the U.S.

SEX OFFENDER REGISTRATION

The U.S. Supreme Court's View

In the past 10 years, sex offender registration laws have been challenged on numerous constitutional grounds. Although lower courts have on occasion upheld the challenges, no challenge has survived appeal to the U.S. Supreme Court. Two of the most significant decisions challenged constitutional issues of the ex post facto clause, double jeopardy, and deprivation of due process.

Ex Post Facto and Double Jeopardy

Ex post facto laws change the consequences of an act after it has occurred. It is unconstitutional to impose new, harsher, punishments on an offender after the fact. Double jeopardy refers to being prosecuted or punished twice for the same crime, which is also prohibited. Many sex offenders are required to register for offenses that were committed before registration laws existed. This, critics argued, violates the Constitution's protection against ex post facto laws. In addition, because registration was not a part of the original sentence, and because registration imposes new restrictions and hardships on an offender that were not part of the original sentence, challengers claimed that they were being punished twice for the same offense. Both of these claims made their way to the Court. In *Smith v. Doe* (2003), the Court upheld Alaska legislation that required previously released offenders to register, and also ruled that disseminating personal information and photographs to the public was constitutional.

In holding that the registry is a civil procedure and thus not punitive, the Court ruled that registries could be applied retroactively without triggering the protections of the ex post facto clause, which only apply to criminal proceedings. Because the registries are civil, not criminal proceedings, they do not constitute double jeopardy, or being retried for the same crime.

Due Process

A second major challenge addressed whether registries deprived offenders of due process because there is no opportunity to defend them. The Fourteenth Amendment to the Constitution guarantees that states shall not deprive citizens of life, liberty, or property without due process of law. This led to challenges on the grounds that being required to register violates an offender's right to due process. In *Connecticut Department of Public Safety v. Doe* (2002), the U.S. Supreme Court held that an offender was not entitled to due process before being placed on a sex offender registry because the only factor that determines whether or not a person is included in the registry is that he or she was convicted of an eligible sex offense. The Court ruled that the offender received the right of due process in the original conviction.

Supreme Court upheld the retroactive provision of registries in ruling that sex-offender registries are civil rather than punitive proceedings and therefore do not violate the ex post facto clause (*Smith v. Doe* 2003).

These and other rulings provided the legal basis for registries, which have led to efforts to expand their contents. In order to centralize sex offender information, in August

2006, Congress passed the Adam Walsh Child Protection and Safety Act (U.S. Public Law 109–248 2006), which created a national centralized database of sex offenders. State and local authorities continue to pass increasingly restrictive provisions on sex offenders.

In some states, such as Illinois, sex offenders who attend an institution of higher learning are required to notify the institution of their status; failure to comply risks additional felony prosecution. Residency restrictions, which create "banishment zones" that prohibit child sex offenders from living near schools, parks, daycare centers, and other places where children might congregate, have gained popularity. In some states, this limits offenders from living within up to 2,500 feet of schools, swimming pools, playgrounds, parks, school bus stops, churches, or other locations where children might congregate (Nieto and Jung 2006).

Critics have argued that these restrictions place an unjust hardship on offenders. They also have argued that, because not all sex offenders are pedophiles, violent, or predators, the restrictions are far too broad in scope, often irrelevant, often not easily enforceable, and unjust. For example, if a school bus stop is placed within the banishment zone where an offender resides, then the offender must move out of the new zone or face felony prosecution (Miller 2006). In enacting banishment zones, an increasing number of cities are requiring offenders who already reside within the zone to move, even if they own their homes. Although these laws have been challenged in federal courts in recent years, in fall 2005 the U.S. Supreme Court declined to review a challenge from the Iowa American Civil Liberties Union (ACLU), which left the laws intact and inspired other states to pass their own residency restrictions.

Other measures designed to publicly identify sex offenders have found their way into legislative agendas in a number of states. Some, such as Illinois, have begun monitoring sex offenders' movements in the community by requiring global positioning system (GPS) monitoring systems that inform authorities if a "high-risk" offender has encroaches into a restricted area. Computer monitoring can trace and record retrievable information for real-time alerts or for later review. This can lead to revocation of parole or to further felony prosecution, even if a registered offender is unaware of the banishment zone and has inadvertently entered it.

Other legislative proposals range from placing special insignia on an offender's driver's license to special pink license plates for all sex offenders (WKYC-TV 2005). In Texas, a judge ordered signs placed in sex offenders' yards, alerting the public that sex offenders are resided there (Milloy 2001). In one Illinois county, an elaborate e-mail distribution system was established to notify neighborhoods when a sex offender moved into the area. Such legislative efforts have prompted the expansion of the scope and restrictions in states and municipalities, creating what has been described as "an arms race of circle-drawing as offenders bounce from city to city" (Howley 2006).

It would seem that sex offender registration is a positive safeguard and a reasonable response to protecting our children. Who, after all, wants to put children at risk of

baby rapers, child murderers, and fiends? To the public, notification laws are a necessary and proactive response to a major social problem, so the responses seem like solutions (Presser and Gunnison 1999, 299–315).

The rationale behind registering sex offenders seems hard to dispute: if we know who offenders are, we will be safe (Sheehan 2006). Given that these laws are intended to protect the public, especially children, and given the public's animosity toward sex offenders and overwhelming support of registries, why should they be controversial?

Key Controversies

There is little disagreement that the public, especially children, should be kept safe from predators. In fact, in a 2005 Gallop poll, over two-thirds of U.S. adults expressed that they were "very concerned" about predators of children (Kelly 2005). Coupled with overwhelming public and legislative support for tougher restrictions on sex offenders returning from prison to the community and an increase in the rhetoric about the dangers of sex offenders, legislators have been eager to act. There is, however, emerging evidence that sex-offender registries and corresponding restrictions on movement, residency requirements, and public stigma may be creating new problems while doing little to enhance public safety. As a result, controversies of all kinds have developed. In particular, four emerging issues demonstrate, but hardly exhaust, the increasing complexity and unanticipated outcomes of sex-offender registries.

The first issue is that of defining a sex offender, as an increasing array of offenses are subsumed in the category. The second issue involves the outcomes: Do restrictive laws do more harm than good? The third issue raises questions about how registries pose problems for offenders attempting to reenter society. The fourth issue asks: Do registries work?

What Is a Sex Offender?

Sex offender rhetoric quickly shifts the meaning of the broad term *sex offender* to the more narrow and highly pejorative label of *child molester* or *pedophile,* as if they were synonymous. They are not. Several problems cloud the definition.

First, despite attempts by politicians to demonize offenders with bombastic rhetoric (Mingus 2006), the reality is that the category of sex offenses requiring registration includes infractions ranging from minor misdemeanors to violent predatory sexual assaults. In Illinois, typical of many states, "sex offenses" can include the commonly accepted definitions, such as forcible rape and pedophilia, but can also include other serious predatory but not sex-related acts such as carjacking if a child is a passenger, kidnapping and unlawful restraint if the carjacker is not the parent, and other crimes against a minor or an adult victim that, while felonies, are not necessarily sexual in nature. Sex offenses also include other actions that can require registration but are not normally considered violent or predatory. This can include sex with a person under age

18, consensual sex between an adult and custodial staff, "indecent exposure," voyeurism if the "victim" is under 18, and "importuning" (indecent solicitation) of a person of any age. We need not condone any of these behaviors to raise the question of whether they all ought to be combined under the single label of *sex offense*.

A second problem arises in defining the term *child offender*. In some states, conviction of any crime against a child, such as child abuse, can result in the requirement to register as a sex offender. No crime against children is acceptable, but words have meanings, and without an explicit sexually predatory component to an offense, we risk casting the net far too wide and catching offenders convicted of fairly minor crimes who then must bear the burden of a spoiled identity.

A third problem with the sex offender label is that the public assumes that *sex offender* is the same as *pedophile*. This is erroneous for two reasons.

First, very few sex offenders are pedophiles, a clinical diagnosis applied to individuals who are sexually attracted to, or engage in sex with, prepubescent children, generally aged 13 years or younger ("Pedophilia" 2005). In reality, however, the overwhelming majority of victims of a sex crime are between 13 and 35, and it is family members or acquaintances who fall within a five-year age range of the victim who usually victimize juvenile victims between ages 13 and 17.

Two, by law, the term *child* broadly refers to a minor, which is any youth under age 18. Thus, a victim aged 2 and one aged 17 years and 11 months are each categorized as "children." This encompassing label also ignores the changing conceptions of childhood over the decades in which the age of consent for marriage or consensual sexual relations has increased from the early teens to the now standard age of 17 or 18 in most states.

Because age 18 is a largely arbitrary social construct reflecting contemporary social norms rather than any inherent biological or other objective standard, some critics of registries argue that they are not so much a reflection of the dangerousness of offenders but of the imposition of subtle patriarchal and gender-based conceptions, especially of young women as "childlike" and in need of protection. Few people would defend behaviors that prey on powerless victims. However, the historical context of the changing conception of childhood suggests that sex-offender registries, in many cases, go too far in criminalizing what, even two decades ago, might not have been an offense. Thus, requiring registration of offenders who committed an offense in 1980 that was not then covered under current laws strikes some critics as unjust.

A fourth problem with defining a sex offender centers on the legal protections of due process: Is a sex offender a person who has been convicted in a court of law, or can criminal proceedings be bypassed to label a person as a sex offender and require registration with subsequent restrictions? State legislators in Ohio have begun a process that would allow alleged sex offenders to be publicly identified and tracked even if they were never charged with a crime ("Sex Offenders" 2006). The proposal would allow prosecutors or alleged victims to petition a judge to have a person civilly declared a sex offender. The

"offender's" name, picture, address, and other information would be placed in public files and on the Internet and subject to the same registration requirements and restrictions as a convicted offender. Although the "offender" could petition to have the name removed, once made public on the Internet, the information becomes a de facto permanent record in private archives and cached files.

Unanticipated Outcomes

The public generally feels that sex offenders "deserve what they have coming" after release. If registries harm offenders, these perpetrators should have thought of that before committing the crime. However, the consequences of registries affect others as well, including some groups that are rarely considered. Here are just a few from a substantial list.

Costs

The increasing number of registered offenders, conservatively estimated to be growing by at least 10 percent per year, adds to the burden of law enforcement agencies that, in most jurisdictions, already operate with strained budgets. Preliminary interviews that we (the present authors) conducted with law enforcement personnel suggest that larger jurisdictions may be facing staff and resource problems in processing offenders, keeping databases up to date, coordinating databases with other agencies, meeting public demand for access to registration information, and maintaining the digital infrastructure required for electronic storage and Internet access. Smaller agencies, lacking specialized personnel to process data, divert the labor of patrol officers and other staff for processing and assuring registry compliance. In jurisdictions that record 10 or fewer registrations a week, this may not be a significant hardship. Nonetheless, according to one law enforcement interviewee, it dramatically diverts staff time away from other more urgent tasks.

Although there are no reliable data for the costs of maintaining registries and some of the costs are absorbed as part of other routine clerical or patrol tasks, there appears to be a growing consensus that as the mission creep of registries expands and the list of offenders grows, law enforcement will need to comply with legislation to process offenders, enforce compliance and other registry provisions, and maintain databases.

The implementation of GPS monitoring adds another direct cost to monitoring, costing up to $10 a day, and tracking a single offender can cost up to $3,650 per year for the technology alone. As of 2006, a total of 13 states had GPS monitoring in place, six more had GPS legislation pending, and other states were considering implementation (Koch 2006).

Property Values

One irony of the registries is that while they may give the perception of increased physical security, they can have a negative economic impact on a neighborhood. Our initial

interviews with realtors in a medium-sized city suggested that the presence of sex offenders living in a neighborhood could be a "deal breaker." Some studies have found that an offender living within a tenth of a mile of an offender's home can lower property values by an average of 10 to 17.4 percent (Larsen, Lowrey, and Coleman 2003; Leigh and Rockoff 2006).

Adoption

Another unanticipated consequence of registries can occur when someone is attempting to adopt a child. A few high-profile cases in which sex offenders adopted and then abused a child have led to closer scrutiny of adopters. Some adoption agencies now include routine checks for sex offending neighbors during background checks, which can complicate or prevent adoption. For example, one of our interviewees in Minnesota began adoption proceedings, but a sex offender moved into the neighborhood. The adoption agency had searched the database for sex offenders, and this then became a potential obstacle in the adoption.

Reentry

Reentry into society is one of the major hurdles that offenders face on release from prison. Sex offenders must overcome additional burdens because of the consequences of registries and the ease of public access to them. For offenders with families, repairing the emotional breaches with partners and children triggers additional family stresses from trying to explain the offense to children, regaining their respect, providing discipline and control in light of the offender's own background, and coping with the withdrawal of neighbors' families and children's school peers. In addition, because of travel restrictions and limits on associations, registered offenders are commonly unable to participate in school or church functions with their families or to engage in other routine domestic activities outside the home.

Another reentry problem lies in the residency requirements. If, on release, an offender's original residence was located within a banishment zone, the offender must move. In some cities, the banishment zones exclude up to 95 percent of available housing.

Mental health issues add special obstacles. For most sex offenders, postrelease counseling is generally a condition of release back into the community. Residency restrictions can make access to counseling services difficult, especially in locations lacking viable mass transit. Other mental health issues include the loss of self-esteem and increased insecurity resulting from the stigma and ubiquitous visibility of their spoiled identity and to constant fears of being "outed" in situations where their identity is not yet known. Because the laws affecting them constantly change, and because registration ranges from 10 years to life, there is the continual uncertainty of not knowing what new requirements or restrictions will disrupt the stability of a normal life. This makes day-to-day living tenuous and long-term planning difficult.

Do Registries Work?

To date, there have been no studies to support the claim that sex-offender registries reduce recidivism or make a community safer. Registration and notification laws have gained a tremendous level of public support, largely due to the perception that the vast majority of sex offenders will repeat their crimes (Levenson and Cotter 2005). The expectation is that these laws will protect society by curbing recidivism and making community members aware of the presence of sex offenders, thus allowing them to monitor or avoid offenders.

The belief that sex offenders have a high probability of repeating their crimes has fueled much of the hysteria surrounding registration and notification. Such perceptions are often formed on the basis of high-profile cases in which a previously convicted sex offender goes on to commit another atrocious offense. However, research has found that sexual offense recidivism rates are far lower than the public perception (Levenson and Cotter 2005). Despite claims by registry proponents that 95 percent of sex offenders will repeat their crimes, the Bureau of Justice Statistics (2003) showed the recidivism rate for sex offenders to be closer to 5 percent (Langan, Schmitt, and Durose 2003). Media and politicians highlighting the dramatic but infrequent cases have largely created the view that sex offenders are all high-risk individuals (Kelly 2005).

In short, sex-offender registries, rather than protecting society, could actually push an offender closer toward recidivism, because they hamper reentry into society and exacerbate the very issues that may have led to the original sex offense (Tewksbury 2005). Some have asked this question, for example, in the case of Phillip Garrido, who was discovered to be holding, in his California home, a woman (Jaycee Dugard) he had kidnapped as a child years before and with whom he had fathered two children despite being a registered sex offender (Cunningham 2009).

There are other concerns with the registries. For example, sex offenders can become victims of vigilante justice; persons on the registries may be there by mistake; there is a growing problem of offender compliance with registries as laws become more restrictive, thus penalizing law-abiding registrants while nonregistrants disappear; and registered names can remain indefinitely on the Internet even after being removed from official lists.

Conclusion

Some states are starting to recognize that sex-offender registries are flawed and result in costly unintended consequences. However, the current trend is for increased restrictions on offenders, harsher laws for noncompliance in registration, and expansion of the definition of a sex offense to assure that no potential predators slip through the cracks.

The escalation of registries and restrictions are fed in part by an ideology of "tough on crime," by fear, and by ignorance. There are no simple answers to complex problems,

TRUE OR FALSE?

1. Most sex offenses are committed by strangers.

False. Studies simply do not support this. Federal data show that 83.9 percent of the abuse or neglect of children was committed by a parent rather than by a stranger (SOHopeful 2005). FBI Uniform Crime Reports in 2004 found that over 80 percent of all sexual offenses are committed by someone known to the victim.

2. Most sex offenders will reoffend.

False. The Bureau of Justice Statistics did a long-term study in 2003 examining the recidivism of sex offenders released from prison in 1994. The study showed that only 5.3 percent of convicted sex offenders were reconvicted of a sex offense within three years of their release according to U.S. Bureau of Justice Statistics in 2003.

3. All sex offenders are pedophiles.

False. The psychiatric profession defines a pedophile as someone whose primary attraction is toward prepubescent children. The word *pedophile* is often used interchangeably with the term *sex offender.* Yet relatively few sex offenders are actually pedophiles. Determining the exact number is difficult, because diagnosing an individual as a pedophile would require a psychological evaluation, and few sex offenders actually undergo such an evaluation.

4. Sex-offender registries will make our communities safer.

False. There is little evidence that communities are safer as a result of sex-offender registries. In fact, experts have suggested that registries tend to give communities a false sense of security, causing residents to become less vigilant if they check the registry and find no sex offenders living near them. Summary data from FBI Uniform Crime Reports in 2004 indicate that infants and young children who are victims "are usually dependents living in the household" and not neighbors or strangers on the street. In addition, sex-offender registries can exacerbate the very issues (such as isolation, rejection, ostracism) in an offender that caused him to offend in the first place, thus increasing the chances of reoffending. The Jacob Wetterling Foundation Web site states that "sex offenders are less likely to reoffend if they live and work in an environment free of harassment, so it is very important that an offender be allowed to live peacefully." Some experts believe that sex-offender registration and notification make it nearly impossible for an offender to live peacefully in a community.

5. Killing or attempting to kill a teenager in a drive-by shooting or a fight could lead to charges as a sex offender.

True. In some states, such as Illinois, sex offenses are vaguely worded and first-degree murder of a "child" under 18 or any attempt to do so could constitute a sex offense requiring registry.

6. Adults commit most sexual offenses.

True. According to the FBI Uniform Crime Reports (2004, 332), juveniles account for about 16 percent of forcible rapes and 22 percent of sexual offenses. Adults over 25 account for about 64 percent of both forcible rapes and sexual offenses.

and policy makers are generally reluctant to appear soft on crime, especially when the welfare of children appears to be at risk.

If legislators were to approach the problem of sex offenses rationally with data-driven judgments rather than demagoguery, then a few modest proposals would be in order:

1. There should be reexamination of whether registries are needed. If, on balance, they are ineffective in solving the problems, and instead create new ones, then they should be discarded.
2. The political rhetoric underlying public discussions of sex offenders and registries should have accurately data-based descriptions of the nature of the problem, avoid the myths surrounding sex offenders, and take into account the impact of hyperbole in obscuring solutions.
3. Media should present to the public a more accurate and less inflammatory characterization of the nature of crime in general and sex offenders in particular.
4. If registries remain a requirement for sex offenders after release, then the criteria for registration should be refined. At a minimum, criteria should include recognition that not all sex offenders are pedophiles, predators, or violent; that the range of sex offenses is overly broad and nets minor offenders, including those whose offense was not sexual in nature; and that policies should distinguish between sexually dangerous persons and one-time offenders.
5. If registries make a community safer, then registries should be expanded to include high-risk offenders who pose a far greater threat to the community than sex offenders. This category would include drug users and dealers, drunk drivers, and burglars.
6. Current laws across the country are a patchwork of inconsistent requirements, definitions, and enforcement. If registries are retained, then there should be consistency such that the harsh laws of one community do not drive offenders to other communities that allow offenders more latitude.
7. Existing policies should be revised to reflect the deleterious impact of registries on families, communities, and on the offenders themselves in order to prevent creating new problems and tacit punishments borne by both nonoffenders and offenders.

8. The movement toward banishment, an ancient practice that most people in an enlightened civilization would reject, should be halted lest we create gulags for ex-offenders.
9. Policy makers should recognize that nearly all incarcerated offenders will eventually return to their communities. Reentry obstacles make adjustment and successful reintegration difficult. Rather than create problems for ex-offenders, legislators should recognize that the best way to assure public safety is to facilitate reentry and work to provide conditions that facilitate family stability, employment opportunities, and reduced costs to taxpayers resulting from all offenders' physical and mental health problems, recidivism, and long-term well-being.

Whether one supports or opposes sex-offender registries, the reality is that they raise complex issues. Those wishing to make their communities safer, protect children and adults, and promote the well-being of all community residents should recognize that this critical issue should not be driven by fear, but by a deeper understanding of the intents and outcomes of our treatment of all ex-offenders.

See also **Sexual Assault and Sexual Harassment**

Further Reading

Bureau of Justice Assistance, "Overview and History of the Jacob Wetterling Act." U.S. Department of Justice, Washington, DC. 2006. http://www.ojp.usdoj.gov/BJA/what/2a1jwacthistory.html

Cote, Suzanne, "Revisiting Megan's Law and Sex Offender Registration: Prevention or Problem?" In *Sexual Violence: Policies, Practices, and Challenges in the United States and Canada,* ed. James F. Hodgson and Debra S. Kelley. Westport, CT: Praeger, 2002.

Cunningham, Erin, "Staying Ahead of Sex Offenders: California Case Likely to Spark Legislation in 2010." *Gazette.Net* (September 18, 2009). http://www.gazette.net/stories/09182009/polinew200041_32521.shtml

Gibson, Camille, and Donna M. Vandiver, *Juvenile Sex Offenders: What the Public Needs to Know.* Westport, CT: Praeger, 2008.

Howley, Kerry, "Sending Sex Offenders into Exile." *Erogenous Zoned* (June 30, 2006). http://www.reason.com/links/links063006.shtml

Kelly, Katy, "To Protect the Innocent: Learning to Keep Sexual Predators at Bay." *U.S. News and World Report* (June 13, 2005). http://www.usnews.com/usnews/culture/articles/050613/13children.htm

Kinnear, Karen L., *Childhood Sexual Abuse: A Reference Handbook,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2007.

Koch, Wendy, "More Sex Offenders Tracked by Satellite." *USA Today* (June 6, 2006). http://www.usatoday.com/tech/news/techinnovations/2006–06–06-gps-tracking_x.htm

Langan, Patrick A., Erica L. Schmitt, and Matthew R. Durose, *Recidivism of Sex Offenders Released from Prison in 1994.* Washington, DC: Bureau of Justice Statistics, 2003.

Larsen, J. E., Kenneth J. Lowrey, and J. Coleman, "The Effect of Proximity to a Registered Sex Offender's Residence on a Single-Family House Selling Price." *Appraisal Journal* (July 2003): 253–265.

Leigh, Linden, and Jonah E. Rockoff, "How Do People Respond to the Fear of Crime? Evidence from Megan's Laws and the Housing Market." Unpublished manuscript. March 2006. http://www.columbia.edu/~ll2240/megans_law_october_05.pdf

Levenson, J., and L. Cotter, "The Effects of Megan's Law on Sex Offender Reintegration." *Journal of Contemporary Criminal Justice* 21, no. 1 (2005): 49–66.

Logan, W., "Sex Offender Registration and Community Notification: Emerging Legal and Research Issues." *Annals New York Academy of Sciences* 989 (2003): 337–351.

Miller, J. Y., "Sex Offenders Told to Leave Church Areas: Lesser-Known Provision Nets Handful of Arrests." *Atlanta Journal-Constitution* (August 25, 2006).

Milloy, Ross E., "Texas Judge Orders Notices Warning of Sex Offenders." *New York Times* (May 29, 2001). http://www.nytimes.com/2001/05/29/us/texas-judge-orders-notices-warning-of-sex-offenders.html?sec=health

Mingus, Will, "The Music Man—On Salesmen and Politicians: Creating a Populism of Fear." Paper presented to the American Correctional Association, Charlotte, NC, August 12, 2006.

Nieto, Marcus, and David Jung, "The Impact of Residency Restrictions on Sex Offenders and Correctional Management Practices: A Literature Review." Sacramento, CA: California Research Bureau, 2006. http://www.ccoso.org/residencyrestrictionsimpact.pdf

"Pedophilia." *Diagnostic and Statistical Manual of Mental Disorders,* 4th ed. (DSM-4). Washington, DC: American Psychiatric Association, 2005, Sect. 302.2, 527–528.

Place, Vanessa, *The Quilt Project: Rape, Morality, Law.* New York: Other Press, 2010.

Presser, L., and E. Gunnison, "Strange Bedfellows: Is Sex Offender Notification a Form of Community Justice?" *Crime and Delinquency* 45, no. 3 (1999): 299–315.

Scott, C., and J. Gerbasi, "Sex Offender Registration and Community Notification Challenges: The Supreme Court Continues Its Trend." *Journal of American Academy of Psychiatry and the Law* 31 (2003): 494–501.

"Sex Offenders: Plan Gains to Publicly Identify Accused: Ohio Panel Backs Registry Proposal." *Toledo Blade* (August 29, 2006). http://www.toledoblade.com/apps/pbcs.dll/article?AID=/20060829/NEWS24/608290360/-1/NEWS

Sheehan, C., "Sex-Offender List Altered: State to Remove Non-Sex Crimes." *Chicago Tribune* (July 3, 2006): Metro 1.

Smith v. Doe, 538 U.S. 84 (2003).

Tewksbury, R., "Collateral Consequences of Sex Offender Registration." *Journal of Contemporary Criminal Justice* 21, no. 1 (2005): 67–81.

U.S. Public Law 109–248, 109th Congress, 27 August, 2006, Adam Walsh Child Protection and Safety Act. http://www.justice.gov/criminal/ceos/Adam%20Walsh.pdf

Winick, Bruce J., and John Q. La Fond, eds., *Protecting Society from Sexually Dangerous Offenders: Law, Justice, and Therapy.* Washington, DC: American Psychological Association, 2003.

WKYC-TV, "New Sexual Offender License Plate Bill Introduced." Cleveland, OH: WKYC Television, April 28, 2005.

Zilney, Laura J., *Perverts and Predators: The Making of Sexual Offending Laws.* Lanham, MD: Rowman & Littlefield, 2009.

Zimring, Franklin E., *An American Tragedy: Legal Responses to Adolescent Sex Offending.* Chicago: University of Chicago Press, 2004.

SEXUAL ASSAULT AND SEXUAL HARASSMENT

Kathryn Woods

The gendered nature of sexual violence is well documented in academic research, organizational and policy studies, and government documents. Viewpoints on why men are responsible for the vast majority of rapes and cases of sexual harassment, with the victims being largely women and girls, often clash in the social, political, and advocacy arenas. Battles between nature and nurture, social construction and biology, and feminism and conservatism contribute to divergent views on both the causes and the consequences of these behaviors.

Background

Whereas men are sexually assaulted by women and same-gender sexual assault does occur (for example, a man sexually assaults a man), statistics indicate that the majority of sexual violence perpetrators are men and the majority of victims are women. In fact, 90 percent of the victims of sexual assault are women and 10 percent are men, and nearly 99 percent of offenders in single-victim assaults are men (Bureau of Justice Statistics 2010). However, not all men who commit acts that meet the legal definition of sexual assault identify their behavior as such. For example, 1 in 12 male college students surveyed report engaging in acts that meet the legal definition of rape or attempted rape, but 84 percent of them report that what they did was "definitely not rape" (Warshaw 1994). The debate about the gendered nature of sexual violence exists in multiple social contexts. Some argue that it is men's nature to sexually dominate and control women. Driven by a biological need to procreate, men sexually dominate women to ensure the continuation of the species and of their own biological line. Thus, when a man is presented with a situation that imposes a barrier to reaching this goal, such as a woman who does not want to have sex, the man's biological predisposition takes the driver's seat, resulting in a disregard for the woman's wishes and leading to sexual assault. However, others argue that it is the patriarchal U.S. society and systemic oppression by men of women that explains the prevalence of men's sexual violence. In what is called a culture of violence, dominance and control are presented as positive attributes of masculinity in society. According to this argument, men's and women's socialization begins in childhood, where toughness is valued in boys and submissiveness is valued in girls. Observers and advocates point out that these messages, paired with a society where men's sexual violence is tacitly accepted, lead to rampant sexual violence with minimal consequences.

The Sexual Violence Continuum

Regardless of their ideological perspectives on sexual violence, most observers would agree that the phenomenon of sexual violence in the United States has grown into an epidemic. With statistics indicating that a rape occurs every 2.5 minutes in the United States and that one in every six women in the U.S. is a victim of rape or attempted rape (Rape, Abuse and Incest National Network 2006), sexual violence causes increasing alarm and commands increasing attention. When viewed as a systemic form of violence, sexual violence is not seen as a single act; rather, sexual violence refers to a range of behaviors commonly described as a sexual violence continuum. These behaviors include stranger rape, date/acquaintance rape, intimate partner rape, and sexual harassment as well as incest, child sexual abuse, voyeurism, and unwanted sexual touching. The concept of a sexual violence continuum is used as an explanatory model by rape crisis centers and sexual assault coalitions nationwide. Although various versions of the model use slightly different stages, they generally refer to a range of behaviors beginning with socially accepted behavior and ending with sexually violent death.

This continuum serves as a road map for exploring the many facets of sexual violence in a larger societal context.

Social Norms versus Criminalization

Although violent crimes such as stranger rape are criminalized in our society, the social norms—that is, the attitudes, behaviors, and beliefs that are considered acceptable in a society—about violence against women often contradict or undermine laws and policies. Thus, whereas institutional policies and laws may specifically denounce and sometimes criminalize a behavior, social norms may contradict this by allowing or failing to respond to certain behaviors. For example, in most states it is illegal to initiate sexual activity with someone who is asleep, as that person is unable to give consent to the activity. However, many fairy tales tell of a prince kissing a princess who is asleep as a result of a wicked spell. The kiss is the only thing that can break the spell, and it is seen as loving and romantic. In fact, many young girls wait for their "prince" to carry them off to a castle to live happily ever after. The idea, or social norm, that kissing a sleeping princess is romantic is both powerful and pervasive in U.S. culture and strongly contradicts legal definitions of nonconsensual sexual behavior. Social norms create an atmosphere in which behaviors are accepted and even socially rewarded based on responses from peers.

Imagine a situation in which a number of college-age young adults are attending a party. Most guests are drinking alcohol, there is music, and plenty of people are dancing and kissing. In this situation, there may be peer pressure for young women and men to behave in certain ways. Young men receive messages that they are supposed to "get a girl," and they receive positive peer reinforcement for initiating and maintaining intimate contact with one or more young women. In fact, the more the man encourages a woman to drink alcohol and engage in intimate behavior, the more social messages the man

receives from his peers, praising him as a "stud." At the same time, the young woman receives messages that she should feel flattered by the sexual attention and that she should do as the man encourages or wants. The social norms of this situation send messages to the woman that she should not assert her own feelings or desires if it will cause a scene or embarrass the man, and the man receives messages that he should continue to push the woman, regardless of her wishes. These messages create an environment where unwanted sexual behavior can occur with little or no intervention from bystanders. This has important consequences for the way observers of rape and sexual harassment patterns assign blame and design policies and laws to address these behaviors.

Individual Belief Systems

Despite existing social norms, sexual violence can occur only when the perpetrator holds a belief system that allows him to engage in sexually intrusive behavior. These belief systems include the ideas that men have ownership or control over women, that a woman owes a man sexual behavior in exchange for some interaction (for example, "If I buy you dinner, you owe me sex"), and that men have earned or have the right to sexual activity regardless of a woman's wishes. These belief systems are reinforced by the larger societal context of systemic oppression and sexism, which sends messages about gender roles, power, and control though the media and social norms. No amount of alcohol or peer pressure can "make" a person force sexual behavior on an unwilling participant if his or her individual belief system does not already support such action to some extent. The controversy lies in people's support for or opposition to individual belief systems that view rape as consensual ("even if she says no, she means yes") and in the belief that sexual harassment is natural and simply part of a man's natural sex drive rather than an unjustifiable act of aggression toward a woman.

Rape and Sexual Assault

Although there are many legal definitions of *sexual assault* and *rape,* in general these terms refer to oral sexual contact or intercourse without consent. Whereas stranger rape is the most publicized type of rape, it is one of the least often committed. Among female victims of sexual assault, 67 percent reported they were assaulted by intimate partners, relatives, friends, or acquaintances (Catalano 2005). In addition, only 8 percent of sexual assaults involve weapons, again in contradiction to the stereotypical idea of stranger rape. This is important, because societal myths about rape and sexual assault affect offenders, victims, bystanders, and those responding to the crimes through law enforcement and social service systems. In struggling with these myths, many victims either believe that the rape was their fault or fail to identify what happened to them as rape. According to one study, only approximately 35 percent of sexual assaults were reported to the police in 2004, an increase in recent years but still a rate substantially lower than the rates for noninterpersonal crimes (Catalano 2005). Many victims choose

RAPE MYTHS AND FACTS

Myth #1: If I am careful, I will never be raped.
Fact #1: Anyone can be raped. While there are steps people can take to protect themselves, such as going out with a friend or meeting dates in a public place, it is the rapist who chooses to assault the victim. Only the rapist can prevent the crime.

Myth #2: Rape is about sexual desire.
Fact #2: Rape is about power and control. Sex becomes the weapon of humiliation, not the goal.

Myth #3: Most rapists are strangers.
Fact #3: Approximately 60 to 80 percent of rape victims know their attacker, and for women 15 to 25 years old, 70 percent of sexual assaults happen during dates (Kanel 2007).

Myth #4: Women who are drinking or wearing revealing clothes are asking to be raped.
Fact #4: No one asks to be raped, and the rapist has sole responsibility for the crime. Women should be able to wear anything they wish and drink alcohol without fear of being sexually victimized.

Myth #5: Once men get turned on, they can't stop.
Fact #5: Could he stop if his mother walked in? (Kanel 2007, 233). There is no "point of no return." Both men and women can choose to stop sexual behavior at any point, even if the result may be discomfort or embarrassment.

Adapted from Kristi Kanel, *A Guide to Crisis Intervention,* 3d ed. (Pacific Grove, CA: Brooks/Cole, 2007).

not to report because of shame, fear, guilt, or concern about others' perceptions. The responses of varying social systems, and in particular of law enforcement, can reinforce these feelings if the victim feels blamed by first responders. On one hand, the judicial system is set up to address charges of rape, based on the societal view that rape is wrong. In practice, however, many people find it difficult to address the issue, and there is often great silence and shame experienced by victims as well as perpetrators, families, law enforcement officials, and other people involved in the process.

Sexual Harassment

Sexual harassment is even more difficult than rape to define and document legally; observers disagree as to when an act actually constitutes harassment. According to law, sexual harassment is an illegal form of sex discrimination that violates two federal

laws: Title VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972. Both laws address sexism and gender discrimination; the Civil Rights Act focuses on nondiscrimination in the workplace, while the Education Amendments focus on nondiscrimination in educational settings. As defined by the U.S. Equal Opportunity Commission (2002), "unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature constitute sexual harassment when submission to or rejection of this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance or creates an intimidating, hostile or offensive work environment" (U.S. Equal Employment Opportunity Commission 2002, 1). In an educational environment, this sexual harassment can "threaten a student's physical or emotional well-being, influence how well a student does in school, and make it difficult for a student to achieve his or her career goals" (U.S. Department of Education 2005, 1). There are two types of sexual harassment as defined by law: quid pro quo and hostile environment.

Quid pro quo, which means "something for something," is a type of sexual harassment that occurs when "an employee [or student] is required to choose between submitting to sexual advances or losing a tangible job [or educational] benefit" (Rubin 1995, 2). Examples may include a boss harassing an employee, a teacher harassing a student, or a coach harassing an athlete. In quid pro quo sexual harassment there must be a power differential between the target and the harasser. The harasser must be able to exercise control over the threatened job or educational benefit. Sexual harassment occurs regardless of whether the target chooses to accept the sexual behavior as long as the conduct is unwelcome.

Hostile environment harassment is "unwelcome conduct that is so severe or pervasive as to change the conditions of the claimant's employment [or education] and create an intimidating, hostile, or offensive work environment" (Rubin 1995). Hostile environment harassment can include gender- or sexual orientation–based jokes or comments, calling people by derogatory gender-related names (for example, "slut"), threats, touching of a sexual nature, offensive e-mail or Web site messages, talking about one's sexual behaviors in front of others, spreading rumors about coworkers' or other students' sexual performance, and negative graffiti (for example, in a bathroom stall).

In general, the standard for sexual harassment is what a "reasonable person" would find offensive. However, a decision by a 1991 circuit court allowed for a "reasonable woman" standard, allowing for differences in perception of offensiveness across gender lines (Rubin 1995). Some argue that jokes, comments, and sexual innuendos are actually compliments to women and are men's natural way of bringing their biological drive for sexual behavior to the forefront. However, men and women often report different perspectives on whether behavior is flattering or offensive.

Additional issues related to the legal criminalization of sexual harassment and rape concern encroachment on a person's sense of sexual safety and invasion of a person's

NORTH COUNTRY

North Country, a Hollywood film starring Academy Award winner Charlize Theron, is based on the nonfiction bestseller *Class Action.* The film and book are based on the true story of Lois Jensen, one of the first women hired to work in a northern Michigan mine in 1975. As one of a handful of female miners in the company, Jensen was subjected to repeated incidents of harassment, including derogatory language, pornographic graffiti, stalking, and physical assaults. In 1984, she decided to file a complaint against the company. Although at first other female miners were afraid to become plaintiffs in the case, eventually many of them joined Jensen. With a strong team of lawyers, they won their case in court, making this the first successful sexual harassment class action lawsuit in the United States.

space. This type of behavior may include a physical intrusion, such as "accidentally" brushing against someone in a sexual manner, but often does not involve actual touch. Sexual jokes, catcalls and whistles, leering at a sexual body part, and making sexual comments are all invasions of sexual space. Some argue that such behavior by men is actually complimentary to women, and frequently those who speak up by identifying such behavior as degrading and disrespectful are labeled as vindictive feminists, jealous, or too serious. Comments such as "Lighten up, it's a just a joke" reflect this view. Sexual assault activists argue that this type of commentary sends a message condoning harassment and also contributes to silencing bystanders who seek to intervene. According to some activists, unwanted sexual touch is the first point on the sexual violence continuum. This is a point at which gender role messages conflict with sexual safety. In most social settings, men receive positive messages with regard to engaging in such behavior in a public setting, and women are often acutely aware of the message that it is not acceptable to embarrass a man. Often, if a woman rebuffs the initial stages of sexual touching, this results in both the woman and the man being viewed negatively in a social context.

Sexual Assault Prevention: Responses to Violence against Women

Traditional sexual assault prevention programs focus on risk reduction strategies for women and girls, teaching them how to avoid situations in which sexual assault is likely to occur based on knowledge of risk factors. However, some argue that risk reduction programs inherently carry a biased view, namely that victims can prevent sexual assault if they simply learn to behave in the "right way." Therefore more recent strategies involve addressing men's socialization processes as well. Literature on engaging men in rape prevention activities focuses clearly on how essential it is to appeal to men as bystanders, not as perpetrators or potential perpetrators (Katz 2001). In order for bystanders to intervene, they must understand the dynamics and risks of sexual violence, have empathy for the devastating impact of sexual violence on victims, and have the skills and confidence

to intervene. In social situations, many young people report feeling uncomfortable when they notice a woman who is the target of sexual attention that appears to be unwanted, but they also report feeling embarrassed at the reaction of their peers if they intervene (Warshaw 1994). Men's love and care for the women in their lives can be a powerful tool in building empathy. And it is men who are "embedded in peer culture" with other men and who are in the most influential position to intervene (Katz 2001, 7). Additionally, activists point out that we cannot challenge the systemic oppression of patriarchy, men's entitlement and privilege, and violence as acceptable without engaging men. According to Katz, "as empowered bystanders, men can interrupt attitudes in other men that may lead to violence. They can respond to incidents of violence or harassment before, during or after the fact. They can model healthy relationships and peaceful conflict resolution" (Katz 2001, 7). Teaching men to intervene at the earlier stages of the sexual violence continuum, especially at the social norms and individual belief systems stages, will result in preventing sexual assaults from occurring.

Conclusion

Viewed through the lens of the sexual violence continuum, it can be seen that there is a clear connection between sexism, social norms that condone violence and the transgression of sexual boundaries, gender role socialization messages to men and women, and sexual harassment, abuse, and assault. According to this model, intervention at the initial stages will prevent the later stages (sexual violence). Ultimately, though, sexual assault activists argue that sexual violence will end only when it becomes completely intolerable in society. Owing to long-held beliefs in men's innate sex drive and women's innate desire to be protected, conquered, or gazed upon, debates on how to address rape and sexual harassment will surely continue. Whereas some observers believe that the federal government should support sexual assault initiatives, others believe that only state or local governments or the private sector should be held responsible for addressing these behaviors. This reveals how difficult it is to legally address behaviors that we are socialized to see as naturally emanating from biology rather than from our social environments, although of course sexual assault activists have worked hard to change these beliefs.

See also **Domestic Violence Interventions; Sex-Offender Registries; Child Abuse (vol. 3)**

Further Reading

Bureau of Justice Statistics, *Criminal Victimization in the United States, 2007.* Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, 2010.

Bureau of Justice Statistics, *Extended Homicide Report.* FBI Uniform Crime Reports. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, 2005.

Catalano, Shannan M., *Criminal Victimization, 2004.* Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, September 2005.

Harrell, Margaret C., and Laura Werber Castaneda, *A Compendium of Sexual Assault Research.* Santa Monica, CA: Rand, 2009.

Kanel, Kristi, *A Guide to Crisis Intervention,* 3d ed. Pacific Grove, CA: Brooks/Cole, 2007.

Katz, J., *Building a "Big Tent" Approach to Ending Men's Violence.* Report published through a grant from the Office on Violence Against Women, Office of Justice Programs. Washington, DC: U.S. Department of Justice, 2001.

Kilpatrick, Dean G., and Ron Acierno, "Mental Health Needs of Crime Victims: Epidemiology and Outcomes." *Journal of Traumatic Stress* 16, no. 2 (2003): 119–132.

Rape, Abuse and Incest National Network (RAINN), 2006. http://www.rainn.org/statistics/index.html

Rennison, Callie Marie, *Rape and Sexual Assault: Reporting to the Police and Medical Attention, 1992–2000.* Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics, 2002.

Rubin, Paula N., *Civil Rights and Criminal Justice: Primer on Sexual Harassment.* National Institute of Justice: Research in Action. Washington, DC: U.S. Department of Justice, Office of Justice Programs, 1995.

Sidran Foundation, "Post-traumatic Stress Disorder Fact Sheet." 2005. http://www.sidran.org/ptsdfacts.html

U.S. Department of Education, *Sexual Harassment: It's Not Academic.* Washington, DC: U.S. Department of Education, 2005.

U.S. Equal Employment Opportunity Commission, "Facts about Sexual Harassment." 2002. http://www.eeoc.gov/facts/fs-sex.html

Warshaw, Robin, *I Never Called It Rape: The Ms. Report on Recognizing, Fighting, and Surviving Date and Acquaintance Rape.* New York: HarperCollins, 1994.

SOCIAL JUSTICE

Leila Sadeghi and Byron E. Price

The path to social justice is fundamentally controversial because it raises issues, ideological and otherwise, that question or debate notions of equity, equality, fairness, and justice itself. Advocates or proponents of "intervention" argue that because institutions and policies establish and maintain social, political, and economic inequality, they also represent the route to achieving social justice or the common good through the equalization of goods and services.

For example, the Green Party, or "leftists" more generally, declare that government must be responsive to injustice by eliminating discrimination, racism, and free-market competition. They believe that government should focus on providing all humans with "basic needs" and a "fair" market system. They further elaborate that in order to accomplish such Herculean tasks of social justice, issues of access, poverty, racism, labor division, and inadequate health care need to be addressed.

THE ACT OF SOCIAL JUSTICE

As noted by Norman Kurland in his foreword to the *Introduction to Social Justice* (1997, ii), "the 'act' of Social Justice is whatever is done in association with others to restructure our institutions and laws to advance the perfection of every person and family affected by that institution."

Opponents or supporters of "nonintervention" argue that social justice cannot be achieved through social engineering and a redistribution of goods and services for all. They argue that government should not be in the business of social intervention, as regulation and control alter at best surface issues do not in fact change the deeper-rooted issues associated with society's ills, and interfere with the "free" market system. Left to its own devices, "conservatives" contend that the free market would solve many problems of inequality because capitalism rewards innovation and hard work. This argument further holds that those disadvantaged by capitalism are unwilling to imitate Horatio Alger and that is the reason they suffer in a system that breeds abundance.

Background

Advocates of social justice are active in voicing their concerns about the unequal distribution of services and goods in society. Although labeled leftists, social justice activists seek to provide quality and equality of life services and goods by campaigning to close the gap between the rich and poor, eliminate hunger and unemployment through such means as providing health care for all, and diminish the social barriers in society that lead to these ills. Still others claim that the only means of achieving social justice would be through the redistribution of income and quasi-control of supply and demand (Ferree 1997).

It is these invisible barriers that prevent society from achieving a utopian state, where all people are treated equally in every aspect of life. Furthermore, these same barriers have been constructed by society to divide and categorize people based on a common set of characteristics, such as class, social stratification, and the division of labor. Additionally, we find that such divisions exist across all of society's institutions, including education, health care, and welfare systems to name a few. Common among these institutions are lateral levels of class stratification according to income and race.

Social justice is typically conceived in two forms, where one end of the spectrum claims that actions must be taken in order to eliminate the ills of society and the other end accepts no preconceived notions in studying those same ills. The first group claims that areas like poverty, division of labor, and homelessness are the underlying causes of social injustice. The latter group studies those areas, claims the importance of doing so, and takes a neutral position. Moreover, social justice has been based on redistributive and recognition theories toward achieving social justice.

Based on the teachings of Thomas Aquinas, the term *social justice* was coined by Luigi Taparelli, an Italian Catholic priest, in his book, published between 1840 and 1843, *Theoretical Treatise on Natural Law Based on Fact,* although others studied the components of social justice before him (Behr 2005). Thomas Aquinas (1225–1274), known as the Doctor Universalis, based his claims on natural theology, in which morality, based on religion, ought to be sought after by all people, who, under God, must adhere to their moral beliefs in doing what is right. This reflected the Christian view that under God's watch, people were to be just and moral in society. He promulgated the idea that justice should not be forced onto humankind but rather felt as the responsibility of the individual based on the rules or laws of Christian religion and the adherence to God's judgment.

Luigi Taparelli came to his theoretical interpretations by examining the levels to which society had been affected and changed by the Industrial Revolution. For one, he believed that the mass migration to the city factories, the design of the wage-laborer, and competition in the marketplace led to the injustices that later formed in society—for instance, the division of the poor and the rich, the competition for jobs and employees, and the turnover of self-employed farmers and peasants to the division of labor and class stratification. At the same time, people were disengaging themselves from the Church and the associated fear of God and engaging in immoral behaviors and manners that contributed largely to the formation of society's ills. Taparelli wanted to create a unified society and used this as his framework of study.

The late Father William J. Ferree, a second great thinker of the social justice movement, wrote "The Act of Social Justice" in 1948, characterizing social justice as a moral duty that obliged each person in society to care for the common good of all (Ferree 1997). According to Kurland, Father Ferree defined the common good as "the network of customs, laws, social organizations—that is, our institutions—that make up the social order and largely determine the quality of culture" (Ferree 1997).

FOUNDATIONS OF SOCIAL JUSTICE

Freedom of speech
Freedom of association
Freedom from racism, discrimination, and sexism
Freedom of ethnic and religious culture and liberty
Freedom from slavery
Freedom of thought
The right to equality
The right to satisfy basic human needs
The redistribution of power, wealth, and status to achieve equitable levels for all

Controversies Surrounding Social Justice

The commitment to social justice has come under attack in several key areas, such as voting, the increasing gap between the rich and the poor, racial profiling, affirmative action, disproportionate incarceration of minorities, and inequitable funding for inner-city schools. Each area mentioned has brought on its own set of unique problems and issues.

The concerns about voting centers in the 2000 presidential election, which reappeared in the 2004 presidential elections, have been heavily debated. Besides the problems with the "hanging chads," hundreds of thousands of felons from Florida were disenfranchised in the 2000 election, which tilted the elections to George W. Bush in 2000. In 2004, Ohio had similar problems and the results were the same, the election was tilted in President Bush's favor as a result of these breaches of social justice. On the other hand, advocates of disenfranchisement contend that felons should not be able to vote and that if people cannot cast a vote correctly, they do not deserve to vote.

Economic inequality has continued to grow, and the latter part of the 20th century, which has been characterized as the most economically prosperous period in U.S. history, has not reversed the gap between the rich and poor. The gap actually widened and the living standards of laborers went from bad to worse during this prosperous period. Issues such as poverty, hunger, and homelessness increased and proved extremely challenging to solve. Sadly, the gap between the rich and poor in the United States grew at the same pace as economic growth. However, proponents of capitalism assert that this inequality could be ameliorated if the poor would take advantages of the opportunities that a wealthy country such as America offers.

Racial profiling has also been a persistent problem that has mostly plagued African American males. The problem is so bad that the neologism "driving while black" has been added to the American vernacular. Furthermore, these stops have been characterized as pretextual stops; that is, the police stop minorities on minor traffic violations in hopes that they will find drugs. Critics contend that these stops are unconstitutional. Proponents of profiling assert that, since minorities are disproportionately the ones found to be in possession of drugs, it is good policing to stop them disproportionately.

Another contentious social justice issue is affirmative action, which seeks to redress inequality in employment and educational opportunity. This issue has been extremely contentious, as it concerns educational admissions and funding. The complaint against affirmative action is that it is a form of reverse discrimination and is no longer needed because we live in a color-blind society. People should not obtain an advantage because of their race. On the other hand, proponents of affirmative action aver that if schools were funded equally and racism was not a part of America's core, there would be no need for initiatives like affirmative action.

Still another contentious issue with social justice ramifications is the disproportionate incarceration of African Americans and Latinos. Compared with their presence in

the population overall, critics contend that criminal justice policy is as racist as it was in the past. For instance, they point out that the prison system comprised white men only prior to the emancipation of black slaves. Once the slaves were freed, the prison system became majority black, and the same diabolical practices are prevalent today. However, if blacks commit crimes, why should they not be incarcerated more than whites? It should not matter whether they are disproportionately incarcerated if they have committed a crime, critics argue.

Finally, the debate in respect to educational funding has been just as bitter as the other debates surrounding social justice, along with the perceived inequality that permeates the American system. For example, critics consider the strategy of using property taxes to fund schools as unfair and discriminatory, especially in view of the fact that the gap between rich and poor continues to grow. A system such as this cannot be the way we fund our schools, opponents of this practice avow. But why should the wealthy be penalized for being able to fund their schools and have money diverted from their districts to poorer districts? Advocates of the current funding system contend that their rights are abridged as well when this practice occurs.

In sum, there are a plethora of social justice issues that could be discussed here, but the ones mentioned are the ones that continue to plague society currently and appear to be the most contentious ones. The issues also threaten to divide the country along the lines of race, class, and social status; that is why they are addressed here.

Legal Decisions

The Help American Vote Act of 2002 was passed to address the voting irregularities that took place in the 2000 presidential elections. The act's main focus is to "assist in the administration of Federal elections and to otherwise provide assistance with the administration of certain Federal election laws and programs, to establish minimum election administration standards for States and units of local government with responsibility for the administration of Federal elections, and for other purposes" (Help America Vote Act 2007).

The act does not address felony disenfranchisement. There have been several challenges to felony disenfranchisement, and for the most part, they have been unsuccessful. In *Richardson v. Ramirez* (1974), the "Supreme Court held that Section Two of the amendment amounted to an 'affirmative sanction' of felon disenfranchisement" (Uggen, Behrens, and Manza 2005). Since the Ramirez case, however, most lawsuits involving felony disenfranchisement have been unsuccessful. For instance, in the *Farrakhan v. Washington* (2003) disenfranchisement case, the plaintiff applied the Voting Rights Act to challenge felony disenfranchisement, but to no avail. Lately this seems to be the pattern, especially as courts have become more conservative.

On the racial profiling issue, an international human rights tribunal filed the first-ever legal challenge to racial profiling and the application was submitted to the United

Nations Human Rights Committee with the intended purpose of halting racial profiling by police. This lawsuit was filed against Spain, and on the American front the End Racial Profiling Act of 2004 still has not passed and is unlikely to pass especially since the attacks of September 11, 2001. Furthermore, racial profiling does not just occur in traffic stops; juries also are subject to racial profiling. It is alleged that African Americans are more lenient on each other and prosecutors use preemptory challenges more often on blacks than on whites.

There have been several challenges to affirmative action on many fronts, but the one making the most noise is in the area of admission policies. In the *Gratz and Hamacher /Grutter v. the Regents of the University of Michigan* lawsuit, it was alleged that the University of Michigan accords unlawful preference to minorities in the undergraduate admissions process. *Hopwood v. Texas* in 1992 brought suit against the University of Texas law school on the same basis. California has also had challenges to its admission process based on reverse discrimination claims because of affirmative action policies in its admissions process.

On the educational funding issue, Ohio, New Jersey, and Texas, to name a few, have been cited as discriminatory in the way they fund their school systems. In 1997, the Ohio Supreme Court ruled that the way Ohio funded its schools was unconstitutional. To date, nothing has been done to adhere to the court's ruling. In New Jersey, the Supreme Court ruled that Abbott districts were inadequate and unconstitutional. The Court in Abbott II and in subsequent rulings, ordered the state to assure that these children receive an adequate education through implementation of a comprehensive set of programs and reforms (*Abbott v. Burk* 1997).

As people continue to compete for scare resources and opportunities, impacted by globalization and structural adjustments to the economy, the likelihood that these controversies will be solved in the near future appears dim in some respects, but Americans are known for innovation.

Redistributive and Recognition Theories

Many argue that social justice can be achieved through the combination of the redistributive and recognition theories. Although both theories examine society's ills and injustices as problems that ought to be corrected, each theory puts forward varying strategies toward curing those ailments. The redistributive theory places emphasis on the economic framework of society as the vital factor in determining society's distribution of goods (Fraser 1998). For example, redistributive theorists argue for the need of a standard of living wage. This would increase family income, provide a better standard of life and care, and overall aid in the mobility of lower-socioeconomic-status families, thus creating a more balanced economy and society. Redistribution taken in a political sense is often based on socioeconomic status and relies on the economy to cure society's injustices. As noted by Fraser (1996), "The politics of redistribution encompasses not

only class-centered orientations, such as New Deal liberalism, social democracy and socialism, but also those forms of feminism and anti-racism that look to socioeconomic transformation or reform as the remedy for gender and racial-ethnic injustice."

Although redistribution theorists view society's economic framework, recognition theorists approach the problem with a varying lens. Recognition theory essentially determines society's ailments and injustices as cultural phenomenon and evaluates them from this prism. It views culture as the determinant of social patterns, behaviors, and interpretations. One's culture often heavily influences many facets of life, including how various cultures view one another, teaches generation upon generation certain biases, attitudes, and beliefs. In order to achieve a better society by use of recognition theory, a greater emphasis must be placed on valuing various cultures and also on deconstructing some of their long-held and often destructive beliefs. Redistribution theory aims to eliminate society's existing economic structure; recognition theory aims to eliminate the existing cultural differences.

Conclusion

As politics becomes more polarized and money continues to drive the decision-making process, decisions will continue to be made from the top, which more than likely means that the wealth gap will continue to grow. Additionally, as globalization continues to restructure the economy and create more competition for wages, there will be less tolerance for programs like affirmative action and equalizing educational funding. Capitalism is in opposition to social justice, because social justice requires a commitment to providing a social safety net for the less fortunate, and that may mean that initiatives that equalize educational funding are an important component of any system committed to providing a social safety net. Moreover, redistributive theories are more likely to become unpopular as the economy contracts and competition becomes stiffer from globalization and the dollar's weakening value.

See also **African American Criminal Injustice; Class Justice; Juvenile Justice; Environmental Justice (vol. 4).**

Further Reading

Abbott v. Burk IV 149 N.J. 145, 693 A2d 417 (1997).

Adams, Maurianne et al., eds., *Readings for Diversity and Social Justice,* 2d ed. New York: Routledge, 2010.

Arrigo, B., S*ocial Justice/Criminal Justice: The Maturation of Critical Theory in Law, Crime, and Deviance.* Contemporary Issues in Crime and Justice Series. Belmont, CA: Wadsworth, 1999.

Behr, Thomas, "Luigi Taparelli and Social Justice: Rediscovering the Origins of a Hallowed Concept." *Social Justice in Context* 1 (2005): 3–16.

Brooks, Roy L., *Racial Justice in the Age of Obama.* Princeton, NJ: Princeton University Press, 2009.

D'Souza, Eugene, ed., *Crime and Social Justice: Society and Law Enforcement.* New Delhi: Commonwealth, 2002.

Ferree, William J., *Introduction to Social Justice.* Mahwah, NJ: Paulist Press, 1997.

Fraser, Nancy, "Social Justice in the Age of Identity Politics: Redistribution, Recognition, and Participation." *Tanner Lectures on Human Values.* Vol. 19. Salt Lake City: University of Utah Press, 1998.

Help America Vote Act. 2002. http://www.fec.gov/hava/haval.htm

Moore, David B., "Shame, Forgiveness, and Juvenile Justice." *Criminal Justice Ethics* 12, no. 1 (Winter/Spring 1993): 3–26.

Quinney, R., *Bearing Witness to Crime and Social Justice.* Albany: State University of New York Press, 2000.

Schwartz, Martin D., and Suzanne E. Hatty, *Controversies in Critical Criminology.* Dayton, OH: Anderson, 2003.

Soohoo, Catherine Albisa, and Martha F. Davis, eds., *Bringing Human Rights Home.* Westport, CT: Praeger, 2008.

Uggen, Christopher, Angela Behrens, and Jeff Manza, "Criminal Disenfranchisement." *Annual Review of Law and Social Science* 2 (2005): 233–254.

Welch, M., "Critical Criminology, Social Justice, and an Alternative View of Incarceration." *Critical Criminology* 7, no. 2 (September 1996): 43–58.

T

THREE-STRIKES LAWS

Rick M. Steinmann

Three-strikes laws mandate long sentences for habitual offenders. The ongoing controversy surrounding these laws revolves around those advocates who argue that long-term incarceration is the most effective way for the community to remain safe and secure; a similarly active group of opponents argues that such laws (particularly California's) are in violation of the Eighth Amendment of the U.S. Constitution because they impose "cruel and unusual" punishment.

In 1993, a parolee who had been released after serving 8 years of a 16-year sentence for kidnapping killed 12-year-old Polly Klaas. Her death received nationwide media coverage and was met with significant public outrage. Amid this atmosphere, three-strikes laws emerged. The same year as Klaas's murder, Washington state became the first state to enact a three-strikes law. One year later, by way of a statewide proposition, California did likewise. By the end of the decade, the federal government and over half the states had also instituted laws of this type. These laws followed a trend begun in the 1980s when "get tough" attitudes were evidenced by lengthier prison sentences and increased prison populations.

Under the most prevalent definition of a three-strikes law found in most states, a person who has been convicted of two prior felonies and then is charged with a new, third serious or violent offense is subject to receiving a prison sentence of from 25 years to life. The intent is to respond to repeat violent offenders in a harsh manner and to decrease the number of inmates involved in the prison's "revolving door" of entry, release, and

re-entry. Three-strikes incarcerations are typically premised on the penology concepts of "incapacitation" (i.e., long-term isolation from society for selected individuals) and "deterrence" (i.e., discouraging the general public from committing criminal offenses).

This entry focuses on the California three-strikes law, as it has received the most extensive nationwide examination by both legal scholars and social science researchers. The extensive review of the California law is attributable to its extremely widespread use by California officials and also the unique language of the statute, which sets it far apart from the laws of other states.

Background

California accounts for about 90 percent of all three-strikes cases nationwide (Vitiello 2002). The impact of the law is reflected in the third-strike population in California jumping from 254 in 1994 to 7,234 in 2003, a 2,709 percent increase (Ehlers, Schiraldi, and Zeidenberg 2004). As for California's statute, it is distinctive in that "any felony," including nonviolent offenses, can constitute the third strike. See California Penal Code Ann., Section 667 (e) (2) (A) (West 1999). One 2003 study of California's three-strikes law found that for 57 percent of third strikers, the offense that triggered their 25-years-to-life in prison was a nonviolent offense. For example, it was found that over 10 times as many third strikers were serving life sentences for drug possession (672) than for second-degree murder (62) (Ehlers, Schiraldi, and Ziedenberg 2004). In fact, 360 individuals in California are serving life sentences under three strikes for shoplifting small amounts of merchandise (Chemerinsky 2004, 11–13), a result of a "wobbler offense" legal provision whereby a misdemeanor petty theft can be treated, under certain circumstances, as if it were a felony.

Inmates who contest their incarceration under three strikes, particularly California prisoners, invariably argue on appeal that the sentence is "grossly disproportionate" to the offense and hence a violation of their Eighth Amendment right to be free from "cruel and unusual" punishment. *Cruel* is generally interpreted to mean excessive, while *unusual* is typically thought to mean out of the ordinary or deviating from normal.

During the initial years following the passage of three strikes in California, the attorney general of the state and others attributed the drop in statewide crime to the implementation of three strikes. The attorney general's office reported that since the passage of three strikes, the "violent crime rate had dropped 26.9 percent" (Vitiello 2002). Also, anecdotal comments have been made relative to the perceived effectiveness of the law.

For example, a two-strikes parolee stated that "he's flipped 100 percent…that the law has scared him… and that it will keep him working hard and keep his attitude adjusted." A prosecutor stated, "We're getting some very bad people, and instead of them doing life on the installment plan, they're just going away" (Peck 2004, 221). Additionally, a former attorney general for the state reported that "in the last year before three strikes

took effect, 1994, 226 more paroled felons chose to move to California than move away from it," whereas "after the law took effect, in 1995, 1335 more paroled felons chose to move away from California than move to it" (Peck 2004, 222). In other words, California's three-strikes law has persuaded prospective third strikers to avoid the state and seek refuge in states whose laws may be perceived as being not quite so harsh.

Opponents of three-strike laws contend that there are many reasons to question the propriety and effectiveness of such laws, particularly California's law. For one, the question of whether three strikes has in fact been an actual cause of the decrease in California crime rates has been addressed in a number of studies. One study found that the California law did not reduce crime below the level that would have been expected considering the prevailing downward trend that had begun before the passage of the law (Stolzenberg and D'Alessio 1997). In other words, the nationwide decrease in crime beginning around 1992 and continuing throughout the 1990s was most likely caused by factors other than three strikes. Such factors commonly advanced include the downturn in the crack cocaine market, community policing measures, an improved economy, gun intervention programs, and a smaller population of people in the so-called crime-prone age range, generally considered to be between the ages of 15 and 25.

The Justice Policy Institute in a 2004 report compared the six California counties that used three strikes most heavily with the six counties that used the law less frequently to see if there were differences in the crime rates. They found that "counties that used the three strikes at a higher rate did not experience greater reductions in crime than counties that used the law less frequently" (Ehlers, Schiraldi, and Ziedenberg 2004, 15). In fact, "the six large counties using three strikes least frequently had a decline in violent crime that was 22.5 percent greater than was experienced by the six large counties using three strikes the most frequently" (Ehlers, Schiraldi, and Ziedenberg 2004, 17).

A 1998 study looked at the impact of three strikes by comparing the crime rates in states with such a law with those in states without such a law. The findings demonstrated that "[s]tates with three-strikes laws do not appear to have experienced faster declines in crime since those laws were implemented, than have states without such laws" (Greenwood et al. 1998). The Justice Policy Institute's more recent 2004 study compared New York (a non–three-strikes state) with California and found that California's 2002 crime rates were much higher than New York's, even though California enacted its three-strikes law eight years earlier (Ehlers, Schiraldi, and Ziedenberg 2004, 20). An earlier 1997 Justice Policy study compared the crime rate in New York City with that in Los Angeles and determined that New York City had experienced much lower levels of crime (Ambrosio and Schiraldi 1997).

The Justice Policy Institute examined the question of three-strikes laws' disproportionate impact on blacks and Latinos and determined that the "African-American incarceration rate for third strikes is 12 times higher than the third strike incarceration rate for whites" and that the "Latino incarceration rate for a third strike is 45 percent higher

than the third strike incarceration rate for whites" (Ehlers, Schiraldi, and Ziedenberg 2004, 11).

The typical third-strike offender enters a California prison in his mid-thirties, whereas the "crime-prone" age range is generally considered to be between the years of 15 and 25, or perhaps to age 30. Some who question the propriety of three-strikes measures suggest that the incarcerated offender has essentially reached the point of "ageing out" of crime upon entry into prison for a third strike. Based on the premise that three strikes was initiated to take the worst and most violent offenders off the streets by selectively incapacitating them and deterring others, a study was conducted examining California crime statistics for those offenders over the age of 30. The researchers, comparing crime data that predated the implementation of three strikes with data obtained after implementation (pre–post comparison study) found that the "over 30 age group—those most subject to the three strikes law—was the only group to display an increase in violent offenses and total felony arrests during the post-three strike period. Therefore, the age group that should have been the most affected by three strikes under the deterrent or selective incapacitation theories showed no deterrent or selective incapacitation effect" (Males and Macallair 1999, 67).

In addition to the clearly enhanced incarceration costs incurred with three strikes, particularly as it pertains to older inmates' medical needs, the issue of the fiscal impact on the court system in California has been similarly examined. The Justice Policy Institute found that three strikes resulted in increased judicial workloads, the shifting of resources from civil to criminal cases, and a significantly increased number of cases going to full trial rather than being plea-bargained (Ehlers, Schiraldi, and Ziedenberg 2004, 28). The thinking among those facing a third-strike conviction is that they have nothing to lose by demanding a full trial, as the advantages of traditional plea bargaining may not be an option provided to them.

BUDGET EXPENDITURES FOR THREE-STRIKES LAWS

Los Angeles County purportedly expended $64 million in added trial and jail costs during the first year three-strikes was initiated and more than $200 million by 1998.* Prisoners added to the California prison system "under three strikes between 1994 and 2003 have been calculated to cost or will cost taxpayers $8.1 billion in prison or jail expenditures . . . $4.7 billion in added costs are the result of longer terms for non-violent offenses."**

*Mark Gladstone, "County Asks State to Pay for 3-Strikes Costs." *Los Angeles Times* (March 27, 1998): B10.

**Scott Ehlers, Vincent Schiraldi, and Jason Ziedenberg, "Still Striking Out: Ten Years of California's Three Strikes." *Justice Policy Institute Policy Report,* March 2004, 1–34.

Key Legal Decisions

The Eighth Amendment's "cruel and unusual punishment" clause has been the subject of extensive appellate court examination relative to methods of punishment, specifically the death penalty. However, the question of if and when a lengthy incarceration can be in violation of this clause has received less judicial appellate oversight.

In the 1910 U.S. Supreme Court case of *U.S. v. Weems,* the issue of the "proportionality" principle relative to punishment was addressed. The Court stated that "it is a precept of justice that punishment for crime should be graduated and proportioned to offense" (*U.S. v. Weems*1910). The thinking behind "proportionality" review is that the courts act as a check on the individual states' power to impose criminal sentences. In practice, however, federal appellate courts have been generally reluctant to review sentences imposed by the individual states. This resistance to such review has received the continued endorsement of the U.S. Supreme Court, as exemplified in the 1982 case of *Hutto v. Davis* (1982), where the Court, in effect, cautioned lower federal courts to be hesitant in reviewing individual state-imposed sentences. Further, it advised them that if such review is granted, actual successful challenges to proportionality review should be "exceedingly rare."

Most recently the U.S. Supreme Court has taken up the issue of sentence "proportionality" review in the landmark 2003 companion cases of *Ewing v. California* (2003) and *Lockyer v. Andrade* (2003). Both cases specifically addressed California's three-strikes law and in both cases the U.S. Supreme Court upheld the constitutionality of the law in close 5–4 decisions, holding that the "cruel and unusual punishment" clause of the Eighth Amendment had not been violated.

In *Ewing,* the third strike involved Gary Ewing's stealing of three golf clubs worth $1,200. He previously had been convicted of four other felonies and eight misdemeanor offenses. His sentence was life in prison with no possibility of parole for 25 years. In *Lockyer,* Leandro Andrade, within a two-week span, first stole five videotapes worth $84.70 and then four videotapes worth $68.82. He was subject to California's so-called "wobbler" offense provision, whereby petty offenses can be elevated to felony status if the individual has prior offenses. Andrade received a sentence of 50 years to life.

The U.S. Supreme Court in both *Ewing* and *Lockyer* used a four-part test in addressing proportionality in sentencing. The test was based on the concurring opinion of Justice Kennedy in the 1991 case of *Harmelin v. Michigan,* where he argued for the establishment of four proportionality principles in reviewing a case (*Harmelin v. Michigan* 1991). After engaging in such review, the Court in *Ewing,* although acknowledging that California's three-strikes law has "sparked controversy" and that critics have doubted the "law's wisdom, cost-efficiency, and effectiveness in reaching its goals," nonetheless stated, "We do not sit as a superlegislature to second-guess these policy choices" (*Ewing v. California* 2003, at 27–28).

"Sentence proportionality review" is guided by the recognition of four principles:

1. The setting of the lengths of prison terms had its primacy in the legislative branch.
2. The Eighth Amendment does not mandate adoption of any one penological system.
3. Benefits of the federal system of government are recognized.
4. Proportionality review must be guided by objective factors.

Source: James J. Brennan, "The Supreme Court's Excessive Deference to Legislative Bodies under Eighth Amendment Sentencing Review." *Journal of Criminal Law and Criminology* 94 (2004): 551–586.

The Court, with Justice O'Connor writing the majority opinions in both *Ewing* and *Lockyer,* upheld the constitutionality of the statute by relying on both California's "public safety interests" and California's right to impose "life sentences on repeat offenders."

The four Justices who dissented in *Ewing* and *Lockyer* argued that the Eighth Amendment clearly forbids, given prior precedent, prison terms that meet the threshold requirement of being "grossly disproportionate." The dissenting justices clearly felt, based on the case facts, that the standard of "gross disproportionality" had been met and that the sentences were unjust (538 U.S., at 35–36).

Based on prior precedent, the question of what is grossly disproportionate currently appears to turn, at least in part, on whether an incarcerated person is theoretically eligible for parole at some point in time or whether a "true" life sentence has been imposed. If the sentence is indeed a "true" life sentence, the Supreme Court may be more inclined to consider it unconstitutional if it is indeed grossly disproportionate, whereas a grossly disproportionate sentence that nonetheless provides for the possibility of parole will not be found unconstitutional (compare *Solem v. Helm* 1983 with *Rummel v. Estelle* 1980).

Some California prosecutors and trial court judges, even in counties that generally invoke three strikes, have softened the impact of the law in the exercise of their legal discretion. Prosecutors sometimes move to dismiss or strike a prior felony conviction in the furtherance of justice. (See California Penal Code Ann., section 667(f) [2]).

Judges as well have latitude in whether to invoke three strikes and can also reduce felonies to misdemeanors. Thus, the three-strike law has not been applied with full implementation and is on occasion circumvented by criminal justice officials. Additionally, the passage by California voters in the year 2000 of Proposition 36—the Substance Abuse and Crime Prevention Act—has to a degree lessened the number of new individuals being incarcerated under the three-strikes law. The law mandates that some drug possession offenders, including three-strikes eligible offenders, may be eligible for drug treatment instead of being incarcerated.

Conclusion

Three-strikes laws are based, at least in part, on the concepts of "selective incapacitation" and "general deterrence." The issue of concern here has been whether the laws actually incapacitate those offenders who are the most violent and who are considered to be strongly inclined toward repeating their offenses if they are not incarcerated for 25 years to life. As discussed earlier in this entry, research focusing on the state of California disputes whether incarcerating individuals, typically in their mid-thirties, for a third-strike nonviolent offense effectively reduces subsequent crime. The argument is that inmates in their mid-thirties are at the point of "ageing out" of crime and therefore will simply cost the prison system untold dollars as their health takes a downturn in later years. As to deterrence, research shows that states without three-strikes laws actually experience lower crime rates. This is the case even within California in counties that rarely if ever use three strikes, which likewise have lower crime rates than those counties that regularly use three strikes. In the future, proponents of three-strikes laws may contend that the laws simply serve the purpose of retribution and therefore abandon the "selective incapacitation" and "general deterrence" arguments.

The role politicians play in supporting three-strikes laws may be altered in the future. In the 1990s politicians provided widespread support for such laws; to do otherwise might have subjected them to political defeat at election time. However, given the expenses incurred in California and nationwide relating to three strikes, politicians may now be more inclined to seek alternative, less expensive ways to control crime. Currently, the money used to fund the California three-strikes initiative is money that might otherwise be available to subsidize other state services, including higher education, the park system, road construction/repair, social services, and the state highway patrol.

The Center for the Study of Media and Public Affairs reported in 1994 that "crime stories on national network television had doubled from the previous year and murder stories had tripled." (Mauer 1999, 15). This media attention actually occurred during a period when nationwide crime was decreasing; yet the question of whether it served in

SHOULD LEGISLATIVE "SUNSET PROVISIONS" APPLY TO THREE-STRIKES LAWS?

Legislative bodies that enact three-strikes laws may wish to establish "sunset provisions," in which the law is set to expire at a future date, subject to review of its impact and consideration as to the merit of continuing to have such a law as it is then written. Or they may perhaps weigh whether the law should be amended in part or perhaps even repealed. This type of process would allow legislative officials to examine any scholarly research that has been conducted on the law and then be in a position to make sound public policy judgments on the future viability of the law.

part to spur on nationwide three-strike initiatives is open to debate. If the media do significantly influence the thinking of policy makers and the public alike, the media could, in the future, similarly influence public policy decisions concerning the continuation of three-strikes policies or instead alternative less costly measures to decrease crime.

In the future, more research should be conducted into the disparate impact on blacks and Latinos relative to the application of three-strike measures. If prosecutors and trial court judges are perceived as applying the law in an inequitable fashion, justice is not served. Witnesses may question the fairness of the proceedings and be reluctant to testify, while juries may engage in jury nullification (acquitting a defendant who is otherwise legally guilty) when confronted with what appears to be selective prosecution based on race or ethnicity.

The U.S. Supreme Court will want, in future decisions, to clarify its meaning of "gross disproportionality," so that three-strikes prisoners can have more guidance in preparing their cases for appeal. Currently, the law appears somewhat unclear, and given the nature of the sentence, typically 25 years to life, an argument can be made that more thorough explanation would be advantageous. One legal scholar asserts that "The Court needs to assert a more active role in protecting an individual's Eighth Amendment guarantee from excessive prison sentence" (Brennan 2004).

In the future, the criminal justice officials most closely connected to the daily operation of three-strike provisions, namely trial court judges, prosecutors, and criminal defense counsel—may play a more substantial role in influencing California's three-strikes law. A research study examined California "courtroom workgroups" through the use of semistructured interviews and questionnaires. The researchers determined that courtroom members most often recommended that the three-strikes law be changed so that the third-strike charge should pertain only to a "serious or violent felony" (Harris and Jesilow 2000).

Whether the current language of the California three-strikes statute will remain the same or be amended in order to eliminate nonviolent offenses and the escalation of misdemeanor offenses to the status of felonies is clearly unknown at present. What is known is that the general public, politicians, criminal justice practitioners, and researchers will continue to examine whether three-strikes laws are an effective mechanism to reduce crime committed by repeat offenders.

See also **Alternative Treatments for Criminal Offenders; Cruel and Unusual Punishment; Prison Construction; War on Drugs**

Legal Citations

Ewing v. California, 538 U.S. 11 (2003).
Harmelin v. Michigan, 501 U.S. 957 (1991).
Hutto v. Davis, 454 U.S. 370 (1982).
Lockyer v. Andrade, 538 U.S. 63 (2003).

U.S. v. Weems, 217 U.S. 349, 347 (1910).

Solem v. Helm, 463 U.S. 277 (1983).

Rummel v. Estelle, 445 U.S. 263 (1980).

Further Reading

Ambrosio, Tara-Jen, and Vincent Schiraldi, *Striking Out: The Crime Control Impact of Three Strikes Laws.* Washington, DC: Policy Institute, 1997.

Brennan, James J., "The Supreme Court's Excessive Deference to Legislative Bodies under Eighth Amendment Sentencing Review." *Journal of Criminal Law and Criminology* 94 (2004): 551–586.

Chemerinsky, Erwin, "Life in Prison for Shoplifting: Cruel and Unusual Punishment." *Human Rights: Journal of the Section of Individual Rights and Responsibilities* 31 (Winter 2004): 11–13.

Clark, John, James Austin, and Henry D. Alan, *Three Strikes and You're Out: A Review of State Legislation.* Washington, DC: U.S. Department of Justice, 1997.

Domanick, Joe, *Cruel Justice: Three Strikes and the Politics of Crime in America's Golden State.* Berkeley: University of California Press, 2004.

Ehlers, Scott, Vincent Schiraldi, and Jason Ziedenberg, "Still Striking Out: Ten Years of California's Three Strikes." *Justice Policy Institute Policy Report.* March 2004.

Greenwood, Peter, et al., *Three Strikes Revisited: An Early Assessment of Implementation and Impact of Strike Laws.* Santa Monica, CA: Rand, 1998.

Harris, John C., and Paul Jesilow, "It's Not the Old Ball Game: Three Strikes and the Courtroom Workgroup." *Justice Quarterly* 17 (2000): 185–203.

Johnson, J. L., and M. A. Saint-Germain, "Officer Down: Implications of Three-Strikes for Public Safety." *Criminal Justice Policy Review* 16 (2005): 443–460.

Males, Mike, and Dan Macallair, "Striking Out: The Failure of California's Three Strikes and You're Out Law." *Stanford Law and Policy Review* 11 (Winter 1999): 65–74.

Mauer, Mark, "Why Are Tough on Crime Policies So Popular?" *Stanford Law and Policy Review* 11 (Winter 1999): 9–21.

Peck, Robert C., "Ewing v. California: Upholding California's Three Strikes Laws." *Pepperdine Law Review* 32 (2004): 191–225.

Stolzenberg, Lisa, and Stewart D'Alessio, "Three Strikes and You're Out: The Impact of California's New Law on Serious Crime Rates." *Crime and Delinquency* 43 (1997): 457–469.

Turner, Susan, et al., "The Impact of Truth-in-Sentencing and Three Strikes Litigation: Prison Populations, State Budgets, and Crime Rates." *Stanford Law and Policy Review* 11 (1999): 75–91.

Vitiello, Michael, "Three Strikes: Can We Return to Rationality?" *Journal of Criminal Law and Criminology* 87 (1997): 395–481.

Vitiello, Michael, "Three Strikes Law: A Real or Imagined Deterrent to Crime?" *Human Rights: Journal of the Section of Individual Rights and Responsibilities* 29 (Spring 2002): 3–5.

Worrall, John L., "The Effect of Three-Strikes Legislation on Serious Crime in California." *Journal of Criminal Justice* 32 (2004): 283–296.

W

WAR ON DRUGS

Lisa Anne Zilney

The War on Drugs in the United States is controversial, in part because it is based on an ever-changing cultural reaction to a substance rather than to an actual threat of individual or social harm. Public perceptions of drugs and alcohol are socially constructed and subject to change based on many factors, perhaps primarily based on the intensity of media campaigns detailing community devastation at the hands of drugs addicts and drug dealers and political pressure to once and for all win the war against drugs. Although the boundary between legal and illegal substances is arbitrary, the United States has spent decades waging this war. It involves a growing prison–industrial complex; a series of "get tough" measures; an almost continual barrage of drug-war rhetoric; and discriminatory treatment based on class, race, and gender. The cost of the War on Drugs has been violence, crime, corruption, devastation of social bonds and the destruction of inner-city communities, and the exponential growth of the number of minorities and women incarcerated. Only after nearly 40 years of conducting this war did the United States government, under President Barack Obama, shift its efforts away from heavy-handed enforcement of drug laws and toward recognition of the public health aspects of the problem, placing greater emphasis on drug-use prevention and treatment (Hananel 2010).

Background

During colonial times, the growth of hemp was required by townships because it was used for a wide variety of purposes, including the production of textiles and paper. The

first prohibitionist laws in the United States were passed in the 19th century, when state and local ordinances were enacted based on the belief that minority individuals were corrupting the moral stature of white American women. High drug-addiction levels during this period were primarily a result of the liberal use of narcotics, for which accurate education was unavailable. Narcotics were viewed as a socially accepted cure-all, and the addictive nature of these substances remained unknown. To illustrate, cocaine was an ingredient in Coca-Cola from 1886 to 1900, and Bayer sold heroin over the counter in 1898 (Gray 2001, 20–21).

One of the first laws to address illicit substances was the Pure Food and Drug Act, passed in 1906, which required all medications to contain accurate labeling of contents. This act was a significant contribution to the rapid decline in the use of narcotics as society became aware of the potential side effects of such substances. Shortly thereafter the Harrison Act, in combination with *Webb v. United States,* prohibited physicians from assisting addicts through the prescription of drugs to alleviate the symptoms associated with narcotics withdrawal. As such, many addicted individuals sought out the black market and contaminated drugs to temper their withdrawal. This era marked the beginning of drug prohibition (Gray 2001, 21–22).

Moral crusaders worked to lobby governmental officials for strict legislation against alcohol and other drugs. The result was prohibition of alcohol from 1920 until 1933. This caused widespread crime and violence, a substantial increase in the law enforcement budget, and a significant rise in the number of individuals incarcerated for alcohol-related offenses. The 1920s also saw the demonization of marijuana, with movies such as *Reefer Madness* conveying to the American public that "one puff of pot can lead clean-cut teenagers down the road to insanity, criminality, and death" (Gray 2001, 24). The Marijuana Tax Act was passed shortly after the end of Prohibition in 1937, recognizing the medical usefulness of marijuana and permitting physicians and authorized others to dispense the drug provided that a licensing fee was paid. The tax, however, for an unlicensed transaction, was so steep as to dissuade the wide-scale use of marijuana for medical purposes (Gray 2001, 23–26). Attitudes toward marijuana, or at least toward its potential uses, changed briefly during World War II, when the government initiated an effort to encourage the use of domestic hemp for industrial purposes. After the end of the war, hemp once again became a "prohibited substance without any practical usages of any kind" (Gray 2001, 26). With the tide turned back toward prohibition, the plethora of get-tough laws began.

Key Moments / Events

Politicians have garnered public support and political benefit from the passage of get-tough laws that, for the most part, consider all illegal substances in one broad category. Both the Boggs Act in 1951 and the Narcotic Control Act in 1956 paved the way for increasingly strict sentences for drug offenses. This was followed in 1961 by ratification

of the Single Convention of Narcotic Drugs treaty. Richard Nixon, who expanded antidrug efforts to disrupt the importation of drugs and increase interdiction, initiated the officially declared War on Drugs. The federal budget for drug prevention and law enforcement increased from $150.2 million in 1971 to $654.8 million in 1973 (Inciardi 2008, 188).

Although Nixon's drug war included moderate financial support for treatment programs, this was dismantled with Ronald Reagan's redeclaration of the War on Drugs. Nancy Reagan popularized the "Just Say No" campaign, and abstinence rather than treatment became the focus. Such campaigns increased public support for antidrug efforts, and in 1984 the Comprehensive Crime Control Act was passed, which served to increase bail and sentences, as well as to increase federal authority to seize the assets of individuals convicted of felony drug offenses. This was followed closely by the Anti–Drug Abuse Act of 1986, which enacted mandatory minimum sentences for persons found guilty of simple possession, doubled penalties for the deliberate involvement of juveniles, and mandatory life sentences for individuals found guilty of conducting a continuing criminal enterprise involving drugs. This act also made the distribution of illegal substances within 1,000 feet of a school a federal offense. In addition, the Anti–Drug Abuse Act required an annual presidential evaluation of countries producing or transporting drugs and the labeling of cooperating countries as antidrug allies in the War on Drugs. Unless granted a waiver by the president, countries that failed to cooperate with the American drug war were threatened with possible trade sanctions and the loss of foreign aid; in addition, the United States would oppose loans for these countries from international lending institutions (Gray 2001, 27).

In 1988 the Anti–Drug Abuse Act was further expanded to include as federal offenses the distribution of drugs within 100 feet of a park, youth center, playground, swimming pool, or video arcade. In 1994 the Crime Bill enacted criminal enterprise statutes resulting in mandatory sentences ranging from 20 years to life; it also indicated the death penalty as a sentence for some drug-selling offenses. All of these get-tough measures served to dramatically increase the number of individuals incarcerated and fueled the growth of the prison–industrial complex. Along with harsher sentences for drug offenses, legislation also affected an offender's ability to successfully reenter the community after serving time. Although there are no disqualifications for offenses like rape or manslaughter, in 1998 the Higher Education Act disqualified individuals who had been convicted of marijuana possession from receiving federal aid to attend college (Gray 2001, 27–28).

The current American political system rewards politicians who approach crime with a get-tough approach, and this fuels the fire of ever-increasing spending on the prison–industrial complex. The Executive Summary for 2010 of the ONDCP (Office of National Drug Control Policy 2009) indicates a 2009 federal budget of $14.8 billion for reducing illegal drug use, an increase of $1.1 billion from 2008. This is in addition to the

TIMELINE OF DRUG-RELATED LAWS AND POLICIES IN THE UNITED STATES

1906	Pure Food and Drug Act
1914	Harrison Narcotic Act
1937	Marijuana Tax Act
1951	Boggs act
1956	Narcotic Control Act
1961	Single Convention of Narcotic Drugs
1966	Narcotics Addict Rehabilitation Act
1968	Mental Health Centers Act
1970	Comprehensive Drug Abuse Prevention and Control Act
1970	Drug Abuse Education Act
1970	Racketeer-Influenced and Corrupt Organizations Act
1973	New York Rockefeller Drug Laws
1974	Narcotic Addict Treatment Act
1979	Model Drug Paraphernalia Act
1979	Marijuana section of Rockefeller Drug Laws repealed
1984	Comprehensive Crime Control Act
1984	Comprehensive Forfeiture Act
1986	Anti–Drug Abuse Act
1986	Mandatory Minimum Laws
1988	Anti–Drug Abuse Act (expanded)
1990	Crime Control Act
1994	Crime Bill
1994	First "Three-Strikes" Law in California
1996	Proposition 215 in California (medical marijuana)
1998	Higher Education Act
2000	Substance Abuse and Crime Prevention Act (California)
2010	National drug policy shifts away from the War on Drugs and toward recognition of the public health aspects of the problem

approximately $30 billion total state budgets, bringing spending for the War on Drugs to approximately $45 billion per year. The ONDCP budget, however, does not appear to fall in line with its stated priorities, which are as follows: priority I, substance abuse prevention; priority II, substance abuse treatment; priority III, domestic law enforcement; and priority IV, interdiction and international counterdrug support. Just over $5 billion in 2010, reduced slightly from 2009, has been devoted to priorities I and II combined. The remaining two thirds of the budget will be dedicated to law enforcement and disrupting the market through the use of programs such as Southwest Border Enforcement, Organized Crime and Drug Enforcement, Immigration and Customs Enforcement, support of the Drug Enforcement Administration, and interdiction

programs focused on Mexico, Colombia, and Afghanistan (Office of National Drug Control Policy 2009).

Aside from the economics of the prison–industrial complex at the state and federal levels, the number of arrests for drug offenses more than tripled from 580,900 in 1980 to 1,846,400 in 2005. Governmental studies reveal that over half of those imprisoned for federal drug offenses are street-level dealers or transporters, about one third are mid-level dealers, and approximately 11 percent are high-level dealers (Federal Bureau of Investigation 2000). On the state level, 58 percent of drug offenders have no history of either violence or high-level drug activity, and one third have been convicted only of a drug-related crime (King and Mauer 2002).

In addition to the expanding prison population, it is also important to recognize the types of offenses for which individuals are receiving lengthy prison terms. During the period from 1990 to 2002 there was an increase in drug arrests of 450,000 individuals. Of these arrests, 82 percent were for marijuana charges, and 79 percent of marijuana offenses were strictly for possession. These numbers represent an increase in marijuana arrests of 113 percent during this period, while overall arrests decreased by 3 percent. During this period, the arrest of offenders using drugs other than marijuana increased by only 10 percent. These results indicate that nearly half of the drug arrests each year involve marijuana, with a mere 6 percent resulting in felony convictions. To pursue such vigorous incarceration policies toward marijuana, the United States spends an estimated $4 billion annually on arrest, prosecution, and incarceration (King and Mauer 2005; Mauer and King 2007).

Research indicates that the increases in arrest do not correspond to an increase in the use of illegal substances. Furthermore, the shifting of law enforcement resources to a focus on marijuana is not in line with any substantiated decrease in the use of other drugs. Therefore the dramatic increase in marijuana arrest rates can only be understood as the result of selective law enforcement decisions. Such enforcement decisions have varied impacts on the lower class and racial minorities as well as on the female population.

Racial Discrimination

Race is intimately connected with the consequences of the War on Drugs. An example of the intersection of class and racial discrimination with regard to drug laws involves New York's Rockefeller Drug Laws, among the harshest in the nation, which were enacted in 1973. These laws created mandatory minimum sentencing requirements intended to crack down on high-level drug offenders. Sentencing under these laws was based entirely on the quantity of drugs sold or possessed, with no consideration of the offender's circumstances or role in the drug industry. What resulted was that many offenders sentenced under these laws were punished more severely than individuals convicted of rape or manslaughter.

The Rockefeller Drug Laws greatly impacted minority communities. New York's population is 23.2 percent African American or Latino; however, these groups comprise 93 percent of those incarcerated for drug felonies. Between 1990 and 2002, New York City experienced an 882 percent increase in arrests for marijuana, including a 2,461 percent increase in arrests for marijuana possession. Although African Americans represent approximately 14 percent of marijuana users in New York City, they represent 30 percent of those arrested for marijuana violations (King and Mauer 2005). The Rockefeller laws were somewhat tempered by the 2004 Drug Law Reform Act, which created a determinate system of sentencing and reduced mandatory minimum sentences for nonviolent felony drug offenses (Real Reform 2006). However, this pattern of discrimination occurs in many states. For example, in Maryland between 1996 and 2001, of all African American offenders, 64 percent were sentenced on drug violations, and an astounding 81 percent of individuals sentenced for drug offenses were African American (Office of National Drug Control Policy 2009).

An overwhelming amount of scholarly research indicates that racial minorities do not partake in the use of drugs with any more frequency than do whites. Nevertheless, the coexistence of race and a lower-class position leaves many minorities more visible to law enforcement, leading to the misperception of higher levels of drug involvement among these groups (Riley 1997). This results in disproportionate arrest and prosecution. Of all drug prisoners in state facilities, 45 percent are African American and 20 percent Hispanic. At the same time, there has been a slow but steady increase in the number of white drug offenders (29 percent in 2005, compared with 20 percent in 1999) incarcerated in state prisons (Mauer 2009).

Gender Discrimination

Gender discrimination is another adverse consequence of get-tough drug legislation. The criminalization of women's involvement in the War on Drugs depends on the notion that female offenders have transgressed their appropriate gender roles in society. Women's involvement in the drug trade can frequently be attributed to economics as opposed to personal addiction. The feminization of poverty has resulted in women seeking alternative sources of income as decoys or drug couriers (mules) who import or transport drugs. The risks of this employment "choice" are high, often resulting in mandatory minimum sentences for women for whom this is their first offense.

In the late 1980s, the media-driven crack baby epidemic led the public to believe that children born to crack-addicted mothers would face educational and social obstacles that were insurmountable. This scenario fueled gender and racial discrimination in the War on Drugs, as an overwhelming majority of mothers portrayed in the media to have given birth to crack babies belonged to a racial or ethnic minority. The impression that this was an epidemic resulted in the passage of laws that criminalized drug use during pregnancy. Such a legal response, however, dissuaded some women from

seeking prenatal care and drug treatment. In addition, maternal drug abuse laws were enforced primarily on minority women: African American and Latino women represented approximately 80 percent of those subject to prosecution. Although research from the National Institute of Drug Abuse has indicated that early medical reports regarding the long-term effects of being born crack-addicted were overstated, the stereotype of the drug-abusing African American or Latino mother remains in the eyes of many Americans (Inciardi 2008, 158–162).

At the close of 1999, more than 80 percent of the women in prison for drug offenses were sentenced using mandatory minimum sentencing laws, and approximately 70 percent of those women were mothers (Bush-Baskette 2000, 924). This has significant and adverse effects for the children's emotional and psychological well-being as well as effects on those individuals who assume guardianship responsibilities of the children and financial costs of supervising children of women who are incarcerated. Perhaps most notably, the psychological impact on the children remains for many years and disrupts their developmental maturity.

The Intersections of Discrimination

When the widespread search for drugs began, drugs were overwhelmingly found where law enforcement exerted its primary search efforts: in low-income, minority neighborhoods where use and dealing are most visible. Although crack is the least used illicit substance, the War on Drugs specifically targeted the possession and sale of crack cocaine by lower-class and minority individuals. Because minorities are overrepresented among the poor, the case of laws regarding crack cocaine versus powder cocaine is illustrative of the intersections of discrimination by class and race.

The wide discrepancy in federally mandated sentences for crack cocaine versus powder cocaine illustrates a class and racial bias in the criminal justice system. Minorities are primarily prosecuted for crack offenses, while whites are primarily prosecuted for powder cocaine offenses (Bush-Baskette 2000, 924). Although the sentencing discrepancy between crack cocaine and powder cocaine offenses has closed slightly in recent years, initially the laws specified that 5 grams of crack cocaine would earn an offender the same five-year mandatory minimum sentence as 500 grams of powder cocaine. This sentencing gap was significant in creating the current disproportion in minority confinement, as an overwhelming percentage of those sentenced for crack cocaine offenses were minority individuals. Conversely, approximately two thirds of those charged with powder cocaine offenses were white. Statistics such as these illustrate the disproportionate arrest and confinement of overwhelmingly lower-class minorities despite research by the Department on Health and Human Services reporting that less than 1 percent of young African Americans had used crack cocaine in their lifetimes, compared with 4.5 percent of whites (Barak, Leighton, and Flavin 2007, 133–135).

In an analysis of discrimination in the War on Drugs, it becomes evident that race and class are inextricably intertwined, because racial minorities are disproportionately represented among the poor. Increased social control of this group of individuals has been accomplished through the use of drug-related laws that are enforced with vigor in low-income, minority neighborhoods. Although drug laws may on their face appear equal and not discriminatory in intent, the consequences of applying get-tough legislation in fighting the War on Drugs has been the unprecedented incarceration of the poor and minorities as well as a significant increase in the number of women under the control of the criminal justice system. Assumptions based on race, class, and gender stereotypes have created and perpetuated moral panics that fuel support for the drug war.

Conclusion

When politicians and the mainstream media discuss all drug alternatives under one umbrella termed "legalization," the public becomes frightened of sacrificing communities to the adverse consequences of drug abuse and addition. There are numerous alternatives to the War on Drugs, however, such as decriminalization, regulated distribution, and harm reduction strategies, including many varieties of drug treatment programs. A bridge between the criminal justice system and the drug treatment community is the Treatment Alternatives to Street Crime (TASC) network. This program uses drug treatment as an alternative or supplement to a criminal justice penalty for a drug offense. Research on programs like TASC offers support for the harm reduction role this initiative plays in interrupting involvement in drug use and criminal activity (Inciardi 2008, 307). Such programs began the movement toward drug courts, which stress accountability, close monitoring, and treatment.

Studies examining the success of drug court programs throughout the 1990s reveal that such programs contribute to a significant reduction in recidivism. Research reveals that recidivism rates for participants range from 5 percent to 28 percent; however, recidivism rates are approximately 50 percent for defendants not participating in drug court initiatives. In addition, such programs substantially lower the self-reported drug use rates for participants (Drug Court Clearinghouse and Technical Assistance Project 1999; *Drug Courts: The Second Decade* 2006). In recent years, states such as Arizona and California have approved initiatives that mandate first- or second-time drug offenders be sentenced to probation and treatment as opposed to incarceration. A review of this program in Arizona by the state Supreme Court concluded that the rate of compliance was 62 percent as of 1999 and such initiatives saved the state $6.7 million in prison expenditures (Arizona Drug Treatment and Education Fund 2001, 364).

In light of the financial savings of many alternative initiatives and the documented success of such programs, the Obama administration has concluded that there are strong economic incentives to scale back and retool the War on Drugs. Current drug policies disproportionately affect lower-class, minority individuals, discriminate against women,

and do little to reduce drug use or encourage treatment for addicted individuals and their families. Government officials now hope that by emphasizing the latter and by stressing community-based antidrug programs, better results can be achieved and a more sustainable balance might be reached between law enforcement requirements and the furtherance of public health (Hananel 2010).

See also **Drug Trafficking and Narco-Terrorism; Prison Construction; Racial, National Origin, and Religion Profiling; Three-Strikes Laws; Addiction and Family (vol. 3); Drugs (vol. 3); Medical Marijuana (vol. 4)**

Further Reading

Arizona Drug Treatment and Education Fund, "Annual Report November 2001." *Federal Sentencing Reporter* 14 (2001): 364.

Barak, Gregg, Paul Leighton, and Jeanne Flavin, *Class, Race, Gender, and Crime,* 2d ed. Lanham, MD: Rowman & Littlefield, 2007.

Benavie, Arthur, *Drugs: America's Holy War.* New York: Routledge, 2009.

Bush-Baskette, Stephanie, "The War On Drugs and the Incarceration of Mothers." *Journal of Drug Issues* 30 (2000): 924.

Campbell, Howard, *Drug War Zone: Frontline Dispatches from the Streets of El Paso and Juárez.* Austin: University of Texas Press, 2009.

Campbell, Nancy D., *Using Women: Gender, Drug Policy, and Social Justice.* New York: Routledge, 2000.

Drug Court Clearinghouse and Technical Assistance Project, *Looking at a Decade of Drug Courts,* 1999. http://www1.spa.american.edu/justice/documents/2049.pdf

Drug Courts: The Second Decade, 2006. http://www1.spa.american.edu/justice/documents/207.pdf

Federal Bureau of Investigation, *Crime in the United States: Uniform Crime Report 2000.* http://www.fbi.gov/ucr/00cius.htm

Fish, Jefferson M., ed., *Drugs and Society: U.S. Public Policy.* Lanham, MD: Rowman & Littlefield, 2006.

Gray, James P., *Why Our Drug Laws Have Failed and What We Can Do about It.* Philadelphia: Temple University Press, 2001.

Hananel, Sam, "Obama Shifts Strategy away from War on Drugs." *Boston Globe* (May 12, 2010).

Inciardi, James A., *The War on Drugs IV: The Continuing Saga of the Mysteries and Miseries of Intoxication, Addiction, Crime, and Public Policy.* Boston: Allyn and Bacon, 2008.

Jenkins, Philip, *Synthetic Panics: The Symbolic Politics of Designer Drugs.* New York: New York University Press, 1999.

King, Ryan S., and Marc Mauer, *Distorted Priorities: Drug Offenders in State Prisons,* Washington, DC: Sentencing Project, 2002. http://www.sentencingproject.org/doc/publications/dp_distortedpriorities.pdf

King, Ryan S., and Marc Mauer, *The War on Marijuana: The Transformation of the War on Drugs in the 1990s.* 2005. http://www.sentencingproject.org/doc/publications/dp_waronmarijuana.pdf

MacDoun, Robert J., and Peter Reuter, *Drug War Heresies: Learning from Other Vices, Times, and Places.* Cambridge, UK: Cambridge University Press, 2001.

Mares, David R., *Drug Wars and Coffeehouses: The Political Economy of the International Drug Trade.* Washington, DC: CQ Press, 2006.

Mauer, Marc, *The Changing Racial Dynamics of the War on Drugs,* 2009. http://www.sentencingproject.org/doc/dp_raceanddrugs.pdf

Mauer, Marc, and Ryan S. King, *A 25-year Quagmire: The War on Drugs and Its Impact on American Society,* 2007. http://www.sentencingproject.org/doc/publications/dp_25yearquagmire.pdf

Office of National Drug Control Policy, 2009. http://www.whitehousedrugpolicy.gov/publications/policy/10budget/exec_summ.pdf

Provine, Doris Marie, *Unequal Under Law: Race in the War on Drugs.* Chicago: University of Chicago Press, 2007.

Real Reform, "Rockefeller Drug Law Reform." 2006. http://www.drugpolicy.org/docUploads/RDLFactSheet_May06.pdf

Riley, K. Jack, "Crack, Powder Cocaine, and Heroin: Drug Purchase and Use Patterns in Six U.S. Cities." December 1997. http://www.ojp.usdoj.gov/nij/pubs-sum/167265.htm

Sadofsky Baggins, David, *Drug Hate and the Corruption of American Justice.* Westport, CT: Praeger, 1998.

Bibliography

Problems and Policies

Abele, Robert P., *A User's Guide to the USA Patriot Act and Beyond.* Lanham, MD: University Press of America, 2005.

Arrigo, B., S*ocial Justice/Criminal Justice: The Maturation of Critical Theory in Law, Crime, and Deviance.* Contemporary Issues in Crime and Justice Series. Belmont, CA: Wadsworth, 1999.

Barak, Gregg, Paul Leighton, and Jeanne Flavin, *Class, Race, Gender, and Crime: The Social Realities of Justice in America,* 3d ed. Lanham, MD: Rowman & Littlefield, 2010.

Barkun, Michael, *Religion and the Racist Right: The Origins of the Christian Identity Movement.* Chapel Hill: University of North Carolina Press, 1996.

Belknap, Joanne, *The Invisible Woman: Gender, Crime, and Justice,* 3d ed. Belmont, CA: Wadsworth, 2006.

Biegelman, Martin T., *Identity Theft Handbook: Detection, Prevention, and Security.* Hoboken, NJ: Wiley, 2009.

Bohm, Robert M., *Primer on Crime and Delinquency Theory,* 2d ed. Belmont, CA: Wadsworth, 2001.

Brasch, Walter M., *America's Unpatriotic Acts: The Federal Government's Violation of Constitutional and Civil Rights.* New York: Peter Lang, 2005.

Brenner, Susan W., *Cybercrime: Criminal Threats from Cyberspace.* Santa Barbara, CA: Praeger, 2010.

Brooks, Roy L., *Racial Justice in the Age of Obama.* Princeton, NJ: Princeton University Press, 2009.

Burbick, Joan, *Gun Show Nation: Gun Culture and American Democracy.* New York: New Press, 2006.

Buzawa, Eve S., and Carl G. Buzawa, *Domestic Violence: The Criminal Justice Response,* 3d ed. Newbury Park, CA: Sage, 2002.

Carruth, Bruce, et al., *Assessment and Treatment of the DWI Offender.* New York: Routledge, 2002.

Coleman, James, *The Criminal Elite.* New York: St. Martin's Press, 1985.

Cook, Philip J., and Jens Ludwig, *Gun Violence: The Real Costs.* New York: Oxford University Press, 2000.

Crews, G. A., and M. R. Counts, *The Evolution of School Disturbance in America: Colonial Times to Modern Day.* Westport, CT: Praeger, 1997.

Crooker, Constance E., *Gun Control and Gun Rights.* Westport, CT: Greenwood Press, 2003.

Cullen, David, *Columbine.* New York: Twelve, 2009.

D'Souza, Eugene, ed., *Crime and Social Justice: Society and Law Enforcement.* New Delhi: Commonwealth, 2002.

Davis, Richard L., *Domestic Violence: Intervention, Prevention, Policies, and Solutions.* Boca Raton, FL: CRC Press, 2008.

Decker, S., and B. Van Winkle, *Life in the Gang.* New York: Cambridge University Press, 1996.

Delaney, Tim, *American Street Gangs.* Upper Saddle River, NJ: Prentice Hall, 2006.

Doherty, Brian, *Gun Control on Trial: Inside the Supreme Court Battle over the Second Amendment.* Washington, DC: Cato Institute, 2009.

Eatwell, Roger, *Fascism and the Extreme Right.* London: Routledge, 2009.

Foerstel, Herbert N., *The Patriot Act: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2008.

Frank, Nancy K., and Michael J. Lynch, *Corporate Crime, Corporate Violence: A Primer.* Albany, NY: Harrow and Heston, 1992.

Friedrichs, David O., *Trusted Criminals: White Collar Crime in Contemporary Society.* Belmont, CA: Wadsworth, 1996.

Furnell, S., *Cybercrime: Vandalizing the Information Society.* Boston: Addison Wesley, 2002.

Gerler, E. R. Jr., ed., *Handbook of School Violence.* Binghamton, NY: Haworth Press, 2004.

Gibson, Camille, and Donna M. Vandiver, *Juvenile Sex Offenders: What the Public Needs to Know.* Westport, CT: Praeger, 2008.

Gitlow, Abraham L., *Corruption in Corporate America: Who Is Responsible? Who Will Protect the Public Interest?* Lanham, MD: University Press of America, 2007.

Goldstein, Arnold P., *Delinquent Gangs:* A *Psychological Perspective.* Champaign, IL: Research Press, 1991.

Gosselin, Denise Kindshi, *Heavy Hands: An Introduction to the Crimes of Family Violence,* 3d ed. Upper Saddle River, NJ: Prentice Hall, 2004.

Hartmann, Thom, *Unequal Protection: The Rise of Corporate Dominance and the Theft of Human Rights.* New York: Rodale Press, 2002.

Hemenway, David, *Private Guns, Public Health.* Ann Arbor: University of Michigan Press, 2006.

Hewitt, Christopher, *Political Violence and Terrorism in America: A Chronology.* Westport, CT: Praeger, 2005.

Hewitt, Christopher, *Understanding Terrorism in American: From the Klan to al Qaeda.* London: Routledge, 2002.

Hickey, E. R., *Serial Murderers and Their Victims.* New York: Wadsworth, 1997.

Hoffman, Sandra K., *Identity Theft: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2010.

Jacobs, James, *Drunk Driving: An American Dilemma.* Chicago: University of Chicago Press, 1992.

Juergensmeyer, Mark, *Terror in the Mind of God: The Global Rise of Religious Violence,* 3d ed. Berkeley: University of California Press, 2003.

Kappeler, V., M. Blumberg, and G. Potter, *The Mythology of Crime and Criminal Justice.* Prospect Heights, IL: Waveland Press, 2000.

Karch, Steven B., *Workplace Drug Testing.* Boca Raton, FL: CRC Press, 2007.

Kinnear, Karen L., *Childhood Sexual Abuse: A Reference Handbook,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2007.

Kleck, Gary, *Point Blank: Guns and Violence in America.* New York: Aldine De Gruyter, 1991.

Klein, Malcolm, *The American Street Gang: Its Nature, Prevalence, and Control.* New York: Oxford University Press, 1995.

Lebrun, Marcel, *Books, Blackboards, and Bullets: School Shootings and Violence in America.* Lanham, MD: Rowman & Littlefield, 2009.

Logan, T. K., *Partner Stalking: How Women Respond, Cope, and Survive.* New York: Springer, 2006.

Lott, John R. Jr., *More Guns, Less Crime: Understanding Crime and Gun-Control Laws,* 2d ed. Chicago: University of Chicago Press, 2000.

Ludwig, Jens, and Philip J. Cook, *Evaluating Gun Policy: Effects on Crime and Violence.* Washington, DC: Brookings Institution Press, 2003.

McClurg, Andrew, David B. Kopel, and Brannon Denning, eds., *Gun Control and Gun Rights: A Reader and Guide.* New York: New York University Press, 2002.

Melzer, Scott, *Gun Crusaders: The NRA's Culture War.* New York: New York University Press, 2009.

Michael, George, *Confronting Right-Wing Extremism and Terrorism in the USA.* London: Routledge, 2003.

Mullen, P. E., M. Pathé, and R. Purcell, *Stalkers and Their Victims,* 2d ed. Cambridge, UK: Cambridge University Press, 2009.

Mulloy, D. J., *American Extremism: History, Politics and the Militia Movement.* London: Routledge, 2008.

Murray, Thomas R., *Violence in America's Schools: Understanding, Prevention, and Responses.* Westport, CT: Praeger, 2006.

Olweus, D., *Bullying at School: What We Know and What We Can Do.* London: Blackwell, 1993.

Pious, Richard M., *The War on Terror and the Rule of Law.* Los Angeles: Roxbury, 2006.

Place, Vanessa, *The Quilt Project: Rape, Morality, Law.* New York: Other Press, 2010.

Quinney, R., *Bearing Witness to Crime and Social Justice* Albany: State University of New York Press, 2000.

Ramsland, K., *Inside the Minds of Serial Killers.* Westport CT: Praeger, 2006.

Reiman, Jeffrey, *The Rich Get Richer and the Poor Get Prison,* 8th ed. Boston: Allyn and Bacon, 2007.

Roberts, Albert R. ed., *Handbook of Domestic Violence Intervention Strategies: Policies, Programs, and Legal Remedies.* New York: Oxford University Press, 2002.

Rosoff, Stephen M., Henry N. Pontell, and Robert H. Tillman, *Profit without Honor: White-Collar Crime and the Looting of America.* Upper Saddle River, NJ: Prentice Hall, 2007.

Ross, H. Laurence, *Confronting Drunk Driving: Social Policy for Saving Lives.* New Haven, CT: Yale University Press, 1994.

Sawvel, Patty Jo, *Student Drug Testing.* Boston: Cengage Gale, 2006.

Schell, B. H., and C. Martin, *Cybercrime.* Santa Barbara, CA: ABC-CLIO, 2004.

Schell, B. H., J. L. Dodge, and S. S. Moutsatsos, *The Hacking of America: Who's Doing It, Why, and How.* Westport, CT: Quorum Books, 2002.

Schlesinger, L. B., *Serial Offenders: Current Thought, Recent Findings.* Boca Raton, FL: CRC Press, 2000.

Schulhofer, Stephen J., *Rethinking the Patriot Act: Keeping America Safe and Free.* New York: Century Foundation, 2005.

Schwartz, Martin D., and Suzanne E. Hatty, *Controversies in Critical Criminology.* Dayton, OH: Anderson, 2003.

Sheldon, Randall G., *Controlling the Dangerous Classes: A History of Criminal Justice in America,* 2d ed. Boston: Allyn and Bacon, 2007.

Simon, David, *Elite Deviance,* 9th ed. Boston: Allyn and Bacon, 2007.

Smith, Norris, and Lynn M. Messina, *Homeland Security.* New York: H. W. Wilson, 2004.

Spergel, Irving A., *The Youth Gang Problem: A Community Approach.* New York: Oxford University Press, 1995.

Spitzer, Robert J., *Gun Control: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2009.

Taylor, Carl S., *Dangerous Society.* East Lansing: Michigan State University Press, 1990.

Thornton, William E., and Lydia Voight, *Delinquency and Justice,* 3d ed. New York: McGraw-Hill, 1992.

Walker, Samuel, Cassia Spohn, and Miriam DeLone, *The Color of Justice: Race, Ethnicity, and Crime in America.* Boston: Wadsworth, 2006.

Warshaw, Robin, *I Never Called It Rape: The Ms. Report on Recognizing, Fighting, and Surviving Date and Acquaintance Rape.* New York: HarperCollins, 1994.

Wellford, Charles, John V. Pepper, and Carol V. Petrie, eds., *Firearms and Violence: A Critical Reader.* Washington, DC: National Academies Press, 2005.

Winick, Bruce J., and John Q. La Fond, eds., *Protecting Society from Sexually Dangerous Offenders: Law, Justice, and Therapy.* Washington, DC: American Psychological Association, 2003.

Woody, Robert Henley, *Search and Seizure: The Fourth Amendment for Law Enforcement Officers.* Springfield, IL: Charles C. Thomas, 2006.

Zilney, Laura J., *Perverts and Predators: The Making of Sexual Offending Laws.* Lanham, MD: Rowman & Littlefield, 2009.

Zimring, Franklin E., *An American Tragedy: Legal Responses to Adolescent Sex Offending.* Chicago: University of Chicago Press, 2004.

Courtroom and Sentencing Issues

Aronson, Jay D., *Genetic Witness: Science, Law, and Controversy in the Making of DNA Profiling.* New Brunswick, NJ: Rutgers University Press, 2007.

Barak, Gregg, Paul Leighton, and Jeanne Flavin, *Class, Race, Gender, and Crime: The Social Realities of Justice in America.* Lanham, MD: Rowman & Littlefield, 2007.

Braswell, Michael C., Belinda R. McCarthy, and Bernard J. McCarthy, *Justice, Crime and Ethics,* 6th ed. Cincinnati, OH: Anderson, 2006.

Bronstein, Daniel A., *Law and the Expert Witness,* 3d ed. Boca Raton, FL: CRC Press, 2007.

Candilis, Philip J., Robert Weinstock, and Richard Martinez, *Forensic Ethics and the Expert Witness.* New York: Springer, 2007.

Clark, George Woody, *Justice and Science: Trials and Triumphs of DNA Evidence.* New Brunswick, NJ: Rutgers University Press, 2008.

Clark, John, James Austin, and Henry D. Alan, *Three Strikes and You're Out: A Review of State Legislation.* Washington, DC: U.S. Department of Justice, 1997.

Cohen, Stanley, *The Wrong Men: America's Epidemic of Wrongful Death Row Convictions.* New York: Carroll & Graf, 2003.

Cohn, Marjorie, and David Dow, *Cameras in the Courtroom: Television and the Pursuit of Justice.* New York: Rowman & Littlefield, 2002.

Cutler, Brian, and Margaret Bull Kovera, *Evaluating Eyewitness Identification.* New York: Oxford University Press, 2010.

Domanick, Joe, *Cruel Justice: Three Strikes and the Politics of Crime in America's Golden State.* Berkeley: University of California Press, 2004.

Doyle, James M., *True Witness: Cops, Courts, Science, and the Battle against Misidentification.* New York: Palgrave Macmillan, 2005.

Erickson, Patricia E., *Crime, Punishment, and Mental Illness: Law and the Behavioral Sciences in Conflict.* New Brunswick, NJ: Rutgers University Press, 2008.

Ewing, Charles Patrick, *Insanity: Murder, Madness, and the Law.* New York: Oxford University Press, 2008.

Fisher, Jim, *Forensics under Fire: Are Bad Science and Dueling Experts Corrupting Criminal Justice?* New Brunswick, NJ: Rutgers University Press, 2008.

Flew, Anthony, *Crime, Punishment, and Disease.* New Brunswick, NJ: Transaction, 2002.

Forst, Brian, *Errors of Justice: Nature, Sources, and Remedies.* New York: Cambridge University Press, 2004.

Friedman, Lawrence, *Crime and Punishment in American History.* New York: Basic Books, 1993.

Goldfarb, Ronald L., *TV or Not TV: Television, Justice, and the Courts.* New York: New York University Press, 2000.

Grisham, John, *The Innocent Man: Murder and Injustice in a Small Town.* New York: Doubleday, 2006.

Harris, Rebecca C., *Black Robes, White Coats: The Puzzle of Judicial Policymaking and Scientific Evidence.* New Brunswick, NJ: Rutgers University Press, 2008.

Kennedy, Randall, *Race, Crime and the Law.* New York: Pantheon, 1997.

Lazer, David, ed., *DNA and the Criminal Justice System: The Technology of Justice.* Cambridge, MA: MIT Press, 2004.

Lee, Henry C., and Frank Tirnady, *Blood Evidence: How DNA is Revolutionizing the Way We Solve Crimes.* Cambridge, MA: Perseus, 2003.

Loftus, Elizabeth F., *Eyewitness Testimony.* Cambridge, MA: Harvard University Press, 1996.

Lynch, Michael, et al., *Truth Machine: The Contentious History of DNA Fingerprinting.* Chicago: University of Chicago Press, 2009.

Lytle, Leslie, *Execution's Doorstep: True Stories of the Innocent and Near Damned.* Boston: Northeastern University Press, 2008.

Mann, Coramae, Marjorie S. Zatz, and Nancy Rodriguez, eds., *Images of Color, Images of Crime: A Reader.* New York: Oxford University Press, 2006.

Mauer, Marc, and Ryan S. King, *Uneven Justice: State Rates of Incarceration by Race and Ethnicity.* Washington, DC: Sentencing Project, 2007.

Meyer, Carl, *Expert Witnessing: Explaining and Understanding Science.* Boca Raton, FL: CRC Press, 1999.

Miller, Jerome G., *Search and Destroy: African-American Males in the Criminal Justice System.* New York: Cambridge University Press, 1996.

Muhammad, Khalil Gibran, *The Condemnation of Blackness: Race, Crime, and the Making of Modern Urban America.* Cambridge, MA: Harvard University Press, 2010.

Muraskin, Roslyn, and Albert R. Roberts, *Visions for Change: Crime and Justice in the 21st Century,* 5th ed. Upper Saddle River, NJ: Prentice Hall, 2008.

Provine, Doris Marie, *Unequal under Law: Race in the War on Drugs.* Chicago: University of Chicago Press, 2007.

Rhode, Deborah L., *Access to Justice.* New York: Oxford University Press, 2004.

Robinson, Matthew B., *Justice Blind? Ideals and Realities of American Criminal Justice,* 3d ed. Upper Saddle River, NJ: Prentice Hall, 2008.

Robinson, Paul H., and Michael T. Cahill, *Law Without Justice: Why Criminal Law Doesn't Give People What They Deserve.* New York: Oxford University Press, 2006.

Rossmo, D. Kim, *Criminal Investigative Failures.* Boca Raton, FL: CRC Press, 2008.

Rudin, Norah, and Keith Inman, *An Introduction to Forensic DNA Analysis,* 2d ed. Boca Raton, FL: CRC Press, 2001.

Russell-Brown, Katheryn, *The Color of Crime,* 2d ed. New York: New York University Press, 2008.

Sales, Bruce Dennis, *Experts in Court: Reconciling Law, Science, and Professional Knowledge.* Washington, DC: American Psychological Association, 2005.

Sporer, Siegfried Ludwig, Roy S. Malpass, and Guenter Koehnken, eds., *Psychological Issues in Eyewitness Identification.* Mahwah, NJ: Erlbaum, 1996.

Tonry, Michael, *Malign Neglect: Race, Crime, and Punishment in America.* New York: Oxford University Press, 1995.

Torrey, E. Fuller, *The Insanity Defense: How America's Failure to Treat the Seriously Mental Ill Endangers Its Citizens.* New York: Norton, 2008.

Walker, Samuel, Cassia Spohn, and Miriam DeLone, *The Color of Justice: Race, Ethnicity and Crime in America,* 4th ed. Belmont, CA: Wadsworth, 2006.

Weiss, Michael Scott, *Public Defenders: Pragmatic and Political Motivations to Represent the Indigent.* New York: LFB Scholarly Publishing, 2004.

Westervelt, Saundra D., and John A. Humphrey, eds., *Wrongly Convicted: Perspectives on Failed Justice.* Newark, NJ: Rutgers University Press, 2001.

Wice, Paul B., *Public Defenders and the American Justice System.* Westport, CT: Praeger, 2005.

Policing

Alpert, Geoffrey P., and Roger G. Dunham, *Understanding Police Use of Force: Officers, Suspects, and Reciprocity.* Cambridge, UK: Cambridge University Press, 2004.

Bloom, Robert M., *Searches, Seizures, and Warrants: A Reference Guide to the United States Constitution.* Westport, CT: Praeger, 2003.

Bodenhamer, David J., *Our Rights.* New York: Oxford University Press, 2007.

Bolton, Kenneth, and Joe R. Feagin, *Black in Blue: African-American Police Officers and Racism.* New York: Routledge, 2004.

Burris, John L., and Catherine Whitney, *Blue vs. Black: Let's End the Conflict between Cops and Minorities.* New York: St. Martin's Griffin, 1999.

Carmen, Alejandro del, *Racial Profiling in America.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2008.

Chevigny, Paul, *Edge of the Knife: Police Violence in the Americas.* New York: New Press, 1995.

Dershowitz, Alan M., *Shouting Fire: Civil Liberties in a Turbulent Age.* Boston: Little, Brown, 2002.

Ferdico, John, *Criminal Procedure for the Criminal Justice Professional,* 10th ed. Belmont, CA: Thomson Wadsworth, 2008.

Georges-Abeyie, D., *The Criminal Justice System and Blacks.* New York: Clark Boardman, 1984.

Glover, Karen S., *Racial Profiling: Research, Racism, and Resistance.* Lanham, MD: Rowman & Littlefield, 2009.

Harcourt, Bernard E., *Against Prediction: Profiling, Policing, and Punishing in an Actuarial Age.* Chicago: University of Chicago Press, 2007.

Harris, David A., *Profiles in Injustice: Why Racial Profiling Won't Work.* New York: Free Press, 2002.

Holmes, Malcolm D., *Race and Police Brutality: Roots of an Urban Dilemma.* Albany: State University of New York Press, 2008.

Human Rights Watch, *Shielded from Justice: Police Brutality and Accountability in the United States.* New York: Human Rights Watch, 1998.

Ingram, Jefferson L., *Criminal Procedure, Theory and Practice,* 2d ed. Upper Saddle River, NJ: Pearson/Prentice Hall, 2008.

Ivers, Greg, and Kevin T. McGuire, *Creating Constitutional Change: Clashes over Power and Liberty in the Supreme Court.* Charlottesville: University of Virginia Press, 2004.

Ivkovic, Sanja Kutnjak, *Fallen Blue Knights: Controlling Police Corruption.* New York: Oxford University Press, 2005.

Krivo, Lauren J., and Ruth D. Peterson, *Race, Crime, and Justice: Contexts and Complexities.* Thousand Oaks, CA: Sage, 2009.

Levitt, Leonard, *NYPD Confidential: Power and Corruption in the Country's Greatest Police Force.* New York: Thomas Dunne Books, 2009.

Moore, Robert, *Search and Seizure of Digital Evidence.* New York: LFB Scholarly Publishing, 2005.

Muhammad, Khalil Gibran, *The Condemnation of Blackness: Race, Crime, and the Making of Urban America.* Cambridge, MA: Harvard University Press, 2010.

Nelson, Jill, *Police Brutality: An Anthology.* New York: W. W. Norton, 2001.

Prenzler, Tim, *Police Corruption: Preventing Misconduct and Maintaining Integrity.* Boca Raton, FL: CRC Press, 2009.

Roberg, Roy, Kenneth Novack, and Gary Cordner, *Police and Society.* New York: Oxford University Press, 2008.

Skolnick, Jerome, and James J. Fyfe, *Above the Law: Police Practices and Procedures.* New York: Free Press/Macmillan, 1993.

Stuart, Gary L., *Miranda: The Story of America's Right to Remain Silent.* Tucson: University of Arizona Press, 2004.

Walker, Samuel, *The New World of Police Accountability.* Thousand Oaks, CA: Sage, 2005.

Weitzer, Ronald, and Steven A. Tuch, *Race and Policing in America: Conflict and Reform.* New York: Cambridge University Press, 2006.

White, Welsh S., *Miranda's Waning Protections.* Ann Arbor: University of Michigan Press, 2001.

Williams, Kristian, *Our Enemies in Blue: Police and Power in America.* Cambridge, MA: South End Press, 2007.

Withrow, Brian L., *Racial Profiling: From Rhetoric to Reason.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

Immigration, Smuggling, and Border Security

Andreas, Peter, *Border Games: Policing the U.S.-Mexico Divide,* 2d ed. Ithaca, NY: Cornell University Press, 2009;

Bales, Kevin, *Disposable People: New Slavery in the Global Economy.* Berkeley: University of California Press, 2004.

Batstone, David, *Not for Sale: The Return of the Global Slave Trade, and How We Can Fight It.* New York: HarperOne, 2007.

Benavie, Arthur, *Drugs: America's Holy War.* New York: Routledge, 2009.

Brotherton, David C., and Philip Kretsedemas, eds., *Keeping Out the Other: A Critical Introduction to Immigration Enforcement Today.* New York: Columbia University Press, 2008.

Buchanan, Patrick, *State of Emergency: The Third World Invasion and Conquest of America.* New York: Thomas Dunn Books/St. Martin's Press, 2006.

Campbell, Howard, *Drug War Zone: Frontline Dispatches from the Streets of El Paso and Juárez.* Austin: University of Texas Press, 2009.

Campbell, Howard, *Drug War Zone: Frontline Dispatches from the Streets of El Paso and Juárez.* Austin: University of Texas Press, 2009.

Chomsky, Aviva, *They Take Our Jobs! and 20 Other Myths about Immigration.* Boston: Beacon Press, 2007.

Cieslik, Thomas, David Felsen, and Akis Kalaitizidis, eds., *Immigration: A Documentary and Reference Guide.* Westport, CT: Greenwood Press, 2009.

Daniels, Roger, *Coming to America: A History of Immigration and Ethnicity in American Life,* 2d ed. New York: Harper Perennial, 2002.

DeStefano, Anthony M., *The War on Human Trafficking: U.S. Policy Assessed.* New Brunswick, NJ: Rutgers University Press, 2007.

Dougherty, Jon E., *Illegals: The Imminent Threat Posed by Our Unsecured U.S.-Mexico Border.* Nashville, TN: WND Books, 2004.

Edberg, Mark Cameron, *El Narcotrafficante: Narcocorridos and the Creation of a Cultural Persona on the U.S.-Mexico Border.* Austin: University of Texas Press, 2004.

Fish, Jefferson M., ed., *Drugs and Society: U.S. Public Policy.* Lanham, MD: Rowman & Littlefield, 2006.

Gaynor, Tim, *Midnight on the Line: The Secret Life of the U.S.-Mexico Border.* New York: Thomas Dunne Books, 2009.

Gray, James P., *Why Our Drug Laws Have Failed and What We Can Do about It.* Philadelphia: Temple University Press, 2001.

Inciardi, James A., *The War on Drugs IV: The Continuing Saga of the Mysteries and Miseries of Intoxication, Addiction, Crime, and Public Policy.* Boston: Allyn and Bacon, 2008.

Johnson, Kevin R., *Opening the Floodgates: Why America Needs to Rethink Its Borders and Immigration Laws.* New York: New York University Press, 2007.

Kenney, Michael, *From Pablo to Osama: Trafficking and Terrorist Networks, Government Bureaucracies and Competitive Adaptation.* Philadelphia: University of Pennsylvania Press, 2007.

Kyle, David, and Rey Koslowski, eds., *Global Human Smuggling: Comparative Perspectives.* Baltimore: Johns Hopkins University Press, 2001.

MacDoun, Robert J., and Peter Reuter, *Drug War Heresies: Learning from Other Vices, Times, and Places.* Cambridge, UK: Cambridge University Press, 2001.

Mares, David R., *Drug Wars and Coffeehouses: The Political Economy of the International Drug Trade.* Washington, DC: CQ Press, 2006.

Martin, Philip L., *Importing Poverty? Immigration and the Changing Face of Rural America.* New Haven: Yale University Press, 2009.

Mills, Nicolaus, *Arguing Immigration: The Debate over the Changing Face of America.* New York: Touchstone, 2007.

Newton, Lina, *Illegal, Alien, or Immigrant: The Politics of Immigration Reform.* New York: New York University Press, 2008.

Ngai, Mai, *Impossible Subjects: Illegal Aliens and the Making of Modern America.* Princeton, NJ: Princeton University Press, 2004.

Payan, Tony, *The Three U.S.-Mexico Border Wars: Drugs, Immigration and Homeland Security.* Westport, CT: Praeger Security International/Greenwood, 2006.

Provine, Doris Marie, *Unequal Under Law: Race in the War on Drugs.* Chicago: University of Chicago Press, 2007.

Richardson, Chad, *On the Edge of the Law: Culture, Labor and Deviance on the South Texas Border.* Austin: University of Texas Press, 2006.

Romero, Fernando, *Hyperborder: The Contemporary U.S.-Mexico Border and Its Future.* New York: Princeton Architectural Press, 2008.

Sadofsky Baggins, David, *Drug Hate and the Corruption of American Justice.* Westport, CT: Praeger, 1998.

Skinner, E. Benjamin, *A Crime So Monstrous: Face-to-Face with Modern-Day Slavery.* New York: Free Press, 2009.

Swain, Carol M., ed., *Debating Immigration.* New York: Cambridge University Press, 2007.

Takaki, Ronald, *A Different Mirror: A History of Multicultural America,* rev. ed. Boston: Back Bay Books, 2008.

Velasco, Jose Luis, *Insurgency, Authoritarianism and Drug Trafficking in Mexico's "Democratization."* New York: Routledge, 2005.

Zhang, Sheldon X., *Smuggling and Trafficking in Human Beings: All Roads Lead to the United States.* Westport, CT: Praeger, 2007.

Prison and Other Punishments

Acker, James R., Robert M. Bohm, and Charles S. Lanier, eds., *America's Experiment with Capital Punishment: Reflections on the Past, Present and Future of the Ultimate Penal Sanction,* 2d ed. Durham, NC: Carolina Academic Press, 2003.

Allen, Harry E., ed., *Repairing Communities through Restorative Justice.* Lanham, MD: American Correctional Association, 2002.

Anderson, David, *Sensible Justice: Alternative to Prison.* New York: New Press, 1998.

Bakken, Gordon Morris, *Invitation to an Execution: A History of the Death Penalty in the United States.* Albuquerque: University of New Mexico Press, 2010.

Banner, Stuart, *The Death Penalty: An American History.* Cambridge, MA: Harvard University Press, 2002.

Bedau, Hugo, and Paul Cassell, eds., *Debating the Death Penalty: Should America Have Capital Punishment?* New York: Oxford University Press, 2004.

Begg, Moazzam, with Victoria Brittain, *Enemy Combatant: A British Muslim's Journey to Guantanamo and Back.* London: Free Press, 2006.

Bohm, Robert M., *Deathquest III: An Introduction to the Theory and Practice of Capital Punishment in the United States,* 3d ed. Cincinnati, OH: Anderson, 2007.

Bruton, James H., *The Big House: Life inside a Supermax Security Prison.* Saint Paul, MN: Voyageur Press, 2004.

Caputo, Gail A., *Intermediate Sanctions in Corrections.* Denton: University of North Texas Press, 2004.

Clear, Todd R., and David R. Karp, *The Community Justice Ideal: Promoting Safety and Achieving Justice.* Boulder, CO: Westview, 1999.

Cusac, Anne-Marie, *Cruel and Unusual: The Culture of Punishment in America.* New Haven, CT: Yale University Press, 2009.

Evans, Kimberly Masters, *Capital Punishment: Cruel and Unusual?* Detroit: Gale, 2008.

Fleisher, Mark S., and Jessica L. Krienert, *The Myth of Prison Rape: Sexual Culture in American Prisons.* Lanham, MD: Rowman & Littlefield, 2009.

Frost, Natasha, *The Punitive State: Crime, Punishment, and Imprisonment across the United States.* New York: LFB Scholarly Publishing, 2006.

Gaes, G. G., and A. L. Goldberg, *Prison Rape: A Critical Review of the Literature.* Washington, DC: National Institute of Justice, 2004.

Gottschalk, Marie, *The Prison and the Gallows: The Politics of Mass Incarceration in America.* New York: Cambridge University Press, 2006.

Hafetz, Jonathan, and Mark Denbeaux, eds., *The Guantanamo Lawyers: Inside a Prison Outside the Law.* New York: New York University Press, 2009.

Hallet, Michael A., *Private Prisons in America: A Critical Race Perspective.* Urbana: University of Illinois Press, 2006.

Haney, Craig, *Death by Design: Capital Punishment as a Social Psychological System.* New York: Oxford University Press, 2005.

Hensley, Christopher, ed., *Prison Sex: Practice and Policy.* Boulder, CO: Lynne Rienner, 2002.

Jacobson, Michael, *Downsizing Prisons: How to Reduce Crime and End Mass Incarceration.* New York: New York University Press, 2005.

Jarvis, Brian, *Cruel and Unusual: Punishment and U.S. Culture.* London: Pluto Press, 2005.

Kuznel, Regina G., *Criminal Intimacy: Prison and the Uneven History of Modern American Sexuality.* Chicago: University of Chicago Press, 2008.

Lynch, Mona, *Sunbelt Justice: Arizona and the Transformation of American Punishment.* Stanford, CA: Stanford Law Books, 2010.

May, John P., and Khilid R. Pitts, eds., *Building Violence: How America's Rush to Incarcerate Creates More Violence.* Thousand Oaks, CA: Sage, 2000.

McShane, Marilyn D., *Prisons in America.* New York: LFB Scholarly Publishing, 2008.

Melusky, Joseph Anthony, *Cruel and Unusual Punishment: Rights and Liberties under the Law.* Santa Barbara, CA: ABC-CLIO, 2003.

Neal, Donice, ed., *Supermax Prisons: Beyond the Rock.* Lanham, MD: American Correctional Association, 2002.

Pratt, Travis C., *Addicted to Incarceration: Corrections Policy and the Politics of Misinformation in the United States.* Los Angeles: Sage, 2009.

Rhodes, Lorna A., *Total Confinement: Madness and Reason in the Maximum Security Prison.* Berkeley, CA: University of California Press, 2004.

Riveland, Chase, *Supermax Prison: Overview and General Considerations.* Longmont, CO: National Institute of Corrections, 1998.

Selman, Donna, and Paul Leighton, *Punishment for Sale: Private Prisons, Big Business, and the Incarceration Binge.* Lanham, MD: Rowman & Littlefield, 2010.

Shalev, Sharon, *Supermax: Controlling Risk through Solitary Confinement.* Uffculme, UK: Willan, 2009.

Sundby, Scott E., *A Life and Death Decision: A Jury Weighs the Death Penalty.* New York: Palgrave Macmillan, 2007.

Tucker, Susan, and Eric Cadora, *Ideas for an Open Society: Justice Reinvestment.* New York: Open Society Institute, 2003.

Useem, Bert, and Anne Morrison Piehl, *Prison State: The Challenge of Mass Incarceration.* New York: Cambridge University Press, 2008.

Vass, Anthony A., *Alternatives to Prison: Punishment Custody and the Community.* Newbury Park, CA: Sage, 1990.

Whitman, James Q., *Harsh Justice: Criminal Punishment and the Widening Divide between America and Europe.* New York: Oxford University Press, 2003.

About the Editor and Contributors

Editor

Michael Shally-Jensen is former editor-in-chief of the *Encyclopedia Americana,* executive editor of the *Encyclopedia of American Studies,* and editor of numerous other books and reference publications. He received his Ph.D. in cultural anthropology from Princeton University, having specialized in aspects of American culture and society. He lives in Amherst, Massachusetts.

Contributors

Gregg Barak is a professor of criminology and criminal justice at Eastern Michigan University and a former visiting distinguished professor and scholar in the College of Justice and Safety at Eastern Kentucky University. Barak has more than 100 publications, including more than 15 books. His most recent title is *Criminology: An Integrated Approach* (2009).

Christopher Bickel is an assistant professor of sociology at California Polytechnic State University, San Luis Obispo. He specializes in criminal justice with an emphasis on juvenile justice. He is currently the director of the "Continuation to College" program at a local continuation school.

Robert M. Bohm is a professor of criminal justice and legal studies at the University of Central Florida. Among his most recent publications are *Introduction to Criminal Justice,* 5th ed. (McGraw-Hill, 2008) and *Deathquest III: An Introduction to the Theory and Practice of Capital Punishment in the United States,* 3rd ed. (2007). He is a past president and fellow of the Academy of Criminal Justice Sciences.

Charles I. Brooks is professor and chair of the Department of Psychology, King's College, Wilkes-Barre, Pennsylvania. He received his masters in psychology from Wake Forest University and his doctorate in experimental psychology from Syracuse University. He has taught at King's College since 1975 and was designated a distinguished service professor in 1993. He has authored or coauthored more than 40 scholarly publications in psychology.

Michael A. Church is associate professor of psychology at King's College in Wilkes-Barre, Pennsylvania. He received his masters and doctoral degrees in psychology from the University of Miami. He has taught at King's College since 1976 and has been a licensed clinical psychologist with a private practice since 1980. He is a member of the Council of National Register of Health Service Providers in Psychology.

Marilyn Corsianos is an associate professor of criminology and sociology at Eastern Michigan University. She has published a number of articles dealing with policing, social justice, and gender issues and is the coeditor of *Interrogating Social Justice: Politics, Culture and Identity* (CSP, 1999). She is also the author of the book, *Policing and Gendered Justice: Examining the Possibilities* (UTP, 2009). She teaches a number of courses in both criminology and sociology at both the graduate and undergraduate level and has presented at local, national, and international professional conferences.

Allison M. Cotton is an associate professor of criminology at the Metropolitan State College of Denver in Colorado. She received a master's degree in sociology from Howard University in Washington, D.C., and a Ph.D. in sociology from the University of Colorado at Boulder. Her research interests include issues of race and gender and portrayal of crime and criminals in the media. She is the author of *Effigy: Images of Capital Defendants* (2008).

Annie Fukushima is a Ph.D. candidate in ethnic studies with an emphasis on gender, women, and sexuality at the University of California, Berkeley. As a scholar activist, Fukushima founded an arts and awareness initiative called Students & Artists Fighting to End Human Slavery. Her scholarly work also includes her collaboration with various academic working groups and organizations from grassroots to nonprofit.

Venessa Garcia is an assistant professor of criminal justice at Kean University in Union, NJ. She received her Masters degree and Ph.D. in sociology from the State University of New York University at Buffalo. Her teaching and research interests focus on women and criminal justice, police culture, and portrayals of crime and victims in the media. She is the coauthor (with Janice Clifford) of *Female Victims of Crime* (2008).

Jo-Ann Della Giustina teaches in the sociology and government departments at John Jay College. She earned an M.A. in interdisciplinary arts education from Columbia College Chicago, and a J.D. from Chicago-Kent College of Law. Currently, she is a doctoral candidate in the Criminal Justice program at the City University of New York Graduate

Center. Her areas of research interest include women and crime, domestic violence, community issues, and media and the law.

Karen S. Glover is an assistant professor in the Criminology and Justice Studies program at California State University San Marcos, where she teaches courses in critical criminology and race studies. She received her Ph.D. from Texas A&M University. Her research interests include racialization and criminalization processes in the criminal justice system. Among her publications is the book *Racial Profiling: Research, Racism, and Resistance* (2009).

Richard D. Hartley is an assistant professor in the Department of Criminal Justice at the University of Texas at San Antonio. He holds a Ph.D. from the School of Criminology and Criminal Justice at the University of Nebraska at Omaha. He teaches courses relating to criminal courts and the administration of justice as well as research methods and statistics. His research interests include prosecutorial and judicial discretion, race/ethnicity and crime, and quantitative methods. Some of his recent and forthcoming publications appear in *Aggression and Violent Behavior, Crime and Delinquency, Criminal Justice Review, Journal of Criminal Justice,* and *Journal of Pediatrics.*

Jessica S. Henry is an assistant professor at Montclair State University, where she teaches in the Department of Justice Studies. She received her J.D. from New York University School of Law. Her primary research areas are criminal law and procedure, prisoner reentry, and hate crimes.

Li-Ching Hung teaches at the Overseas Institute of Technology in Taijung, Taiwan. She earned her Ph.D. in education at Mississippi State University and is working toward a second doctorate in counselor education. She has more than 40 publications, including (with Cary Stacy Smith), *The Patriot Act* (2010).

Jonathan Kremser joined the faculty of criminal justice at Kutztown University of Pennsylvania in 2003. His previous research interests have focused on secondary school violence and disciplinary policies in Ontario, Canada. His current academic and research interests include school safety initiatives and legislation, street-level interventions targeting young offenders, urban crime prevention, and critical theory. He has presented papers on school discipline policy and urban crime control at several major conferences in the United States and Canada.

Paul Leighton is a professor in the Department of Sociology, Anthropology and Criminology at Eastern Michigan University. His research interests include violence, white collar crime, criminal justice policy, and punishment. Along with Jeffrey Reiman, he edited *Criminal Justice Ethics* (Prentice Hall, 2001) and he coauthored—with Gregg Barak and Jeanne Flavin—*Class, Race, Gender and Crime* (2007). He has been the North American editor of *Critical Criminology: An International Journal* and the American

Society of Criminology's Division on Critical Criminology named him Critical Criminologist of the Year in 2001. He is founder and webmaster of StopViolence.com, a collection of information about violence prevention.

Keith G. Logan is a former federal law enforcement officer, having served with the U.S. Drug Enforcement Administration, the U.S. Environmental Protection Agency, and the U.S. Nuclear Regulatory Commission. He was a special assistant U.S. attorney for the District of Columbia and the Eastern District of Virginia, where he is presently admitted to practice law, in addition to the U.S. Supreme Court. He is a former U.S. Army Reserve Officer, Major, Military Police Corps, as well as a consultant specializing in the investigation of whistleblower retaliation allegations and Equal Economic Opportunity (EEO) concerns. He has been a visiting instructor on the U.S. Criminal Justice system at the Diplomatic Academy in Moscow, Russia.

Catherine D. Marcum is an assistant professor of justice studies in the Political Science Department at Georgia Southern University. She received her Ph.D. in criminology from Indiana University of Pennsylvania. Her most recent work appears in *Deviant Behavior, Criminal Justice Studies, International Journal of Cyber Criminology,* and *Journal of Child Sexual Abuse.*

Will Mingus is a counselor for sex offenders in Chicago and is pursuing an advanced degree in sociology at the University of Illinois at Chicago. His current research focuses on how sex offender registries create unanticipated reentry problems for offenders that hamper successful reintegration into their communities.

Matthew Muraskin is an attorney, former head of the Nassau County Legal Aid Society, and coauthor (with Roslyn Muraskin) of *Morality and the Law* (2000).

Roslyn Muraskin is a professor of criminal justice at the C.W. Post Campus of Long Island University. Among her many published works are *Key Correctional Issues,* 2d ed. (2009), *It's a Crime: Women and Justice,* 4th ed. (2006), and (with Shelly Domash) *Crime and the Media* (2006). She is the editor of the journal *Criminal Justice Studies.*

Matt Nobles is an assistant professor in the Criminal Justice program at Washington State University. He received his doctorate in criminology from the University of Florida. His areas of interest include violent and interpersonal crime, guns and gun policy, and communities and crime.

Leanne R. Owen is an associate professor of criminal justice in the School of Arts and Sciences at Holy Family University in Philadelphia, where she also serves as program director for the Criminal Justice Graduate Program. She earned her master's and doctorate in comparative criminology and criminal justice from the University of Wales, Bangor. Her research interests include prosecutorial discretion and juvenile delinquency.

Alexander W. Pisciotta is a professor of criminal justice and chair of the Criminal Justice department at Kutztown University of Pennsylvania. He has written numerous articles appearing in criminal justice, criminology, and law journals, and is author of the book *Benevolent Repression: Social Control and the American Reformatory-Prison Movement* (1996).

Byron E. Price is an assistant professor of public administration at Rutgers University–Newark. He is the associate director of the National Center for Public Productivity, Rutgers University–Newark, editor-in-chief of the *Journal of Public Management and Social Policy,* and case study editor for *Public Productivity and Management Review.* His current research agenda includes constitutional implications of public and private arrangements, prison privatization, e-governance, performance measurement, and education reform.

Rebecca Romo is a graduate student at the University of California–Santa Barbara. Her particular interests rest in the Northern (Norteño) and Southern (Sureño) California Chicana/o gangs and the interethnic relations between blacks and Chicanas/os in the United States. Rebecca is currently involved in multiple social justice campaigns.

Jeffrey Ian Ross is an associate professor in the Division of Criminology, Criminal Justice and Social Policy, and a fellow of the Center for International and Comparative Law at the University of Baltimore. He has researched, written, and lectured on national security, political violence, political crime, violent crime, corrections, and policing for over two decades. Ross's work has appeared in many academic journals and books as well as popular outlets. He is the author, coauthor, editor, and coeditor of 13 books including most recently *Beyond Bars: Rejoining Society after Prison* (2009).

Tawandra L. Rowell is a postdoctoral fellow at the HIV Center for Clinical and Behavioral Studies at the New York Psychiatric Institute and Columbia University. She received her doctorate in Social Welfare from the University of Pennsylvania. Rowell is interested in the role of incarceration, substance abuse, and sexual behavior in HIV acquisition and transmission among African American men.

Leila Sadeghi is an assistant professor and senior research associate with the Center for Executive Leadership in Government at Rutgers University. Her research and teaching interests focus on social media for government, privatization, and criminal justice policy. She has published several book chapters, articles, and reports on these topics and she has designed and hosted training sessions for public officials in these areas.

Claudia San Miguel is an assistant professor and director of the Criminal Justice Program at Texas A&M International University. She received her Ph.D. in criminal justice from Sam Houston University. She is co–guest editor of *The Journal of Social and*

Ecological Boundaries (JSEB) Special Issue: Immigration: Crime, Victimization and Media Representation. She has published in the *Criminal Justice Review, JSEB.*

Xuan Santos is a graduate student at the University of California-Santa Barbara. His research interests focuses on the informal labor market and the underground economy of immigrants in the United States, and the intersection of antigang and anti-immigrant public policy. He is a community activist and advocate for gang and immigrant rights reform.

Bernadette H. Schell is a professor of business and information technology at the University of Ontario Institute of Technology, Oshawa, Ontario. Her published works include (with John L. Dodge) *The Hacking of America: Who's Doing It and Why* (Praeger, 2002) and (with Clemens Martin) *Cybercrime: A Reference Handbook* (ABC-CLIO, 2004).

Julia Selman-Ayetey is a lecturer in criminology at Anglia Ruskin University in Cambridge, U.K. She is particularly interested in the legislative framework governing the use of DNA in criminal justice systems and its impact on civil liberties and human rights. She is a member of the National DNA Database Ethics Group which advises the British Home Office and has contributed to a number of edited books on the forensic use of DNA.

Donna Selman-Killingbeck received her doctorate from Western Michigan University and is currently an assistant professor in the department of sociology, anthropology, and criminology at Eastern Michigan University. Her research interests include prison privatization, restorative justice, and community justice.

William L. Shulman is an associate professor of criminal justice at Middle Tennessee State University. Prior to teaching at Middle, in 1990 he served as an assistant public defender, a senior assistant public defender, and the elected public defender for Nashville, Tennessee, from 1980 to 1990. He obtained his J.D. from the University of Tennessee College of Law.

Cary Stacy Smith is a Ph.D. candidate in psychology at Mississippi State University. He has authored or coauthored numerous publications, including most recently (with Li-Ching Hung) *The Patriot Act* (2010).

Daniel L. Smith-Christopher is a professor of theological studies and director of peace studies at Loyola Marymount University. He appears regularly on television as a consultant and scholarly commentator on documentaries broadcast by A&E, Discovery, the History Channel, The National Geographic Network, and PBS (Public Broadcasting System), and is the author of numerous works of scholarship.

Rick M. Steinmann received his master's in criminal justice from Youngstown State University and a law degree from Hamline University School of Law. He has fieldwork

experience in juvenile justice, corrections, policing, and within the court system. He has taught criminal justice courses full-time at the university level for 24 years and his research interests generally pertain to how various legal issues impact on the criminal justice system.

Angela Taylor is an assistant professor of criminal justice at Fayetteville State University. She received her M.A. and Ph.D. degrees in criminal justice from Rutgers University. Her research areas are violence, drugs–crime linkages, drug use measurement, and health disparities and crime.

Jim Thomas is professor emeritus at Northern Illinois University, where he specializes in research on prison culture, research ethics, and computer crime. He has been active in prison monitoring and reform and prisoner education for over 25 years and is currently exploring the impact of faith-based initiatives in prison programming. His most recent publications include self-injury among women prisoners and Nigerian e-mail scams. He is also completing a volume on ethnographic research methods and adaptation to prison culture.

E. Andreas Tomaszewski is on the Justice Studies faculty of Mount Royal University, Calgary, Alberta, Canada. A native of Germany, he obtained an M.A. in Canadian studies and a Ph.D. in sociology from Carleton University in Ottawa. His research interests focus on the sociology of crime and deviance, with a special interest in social control, as well as social justice issues. He has published on Aboriginal justice issues, violence against women, street crime, drugs, transnational crime, and social justice pedagogy.

Judith Ann Warner is a professor of sociology and criminal justice at Texas A&M International University (TAMIU). In 2008, she received the Distance Educator of the Year award, and in 1991 she received the Scholar of the Year award from TAMIU. She is co-editor of the *Journal of Social and Ecological Boundaries* and has published in the areas of immigration, homeland security, and domestic violence. Her research interests include immigration, homeland security, and the intersection of race, class, and gender.

Dianne Williams is a lecturer at North Carolina Agricultural & Technical State University. She is a certified Social & Behavioral Research Investigator and a certified Criminal Justice Specialist. Her research interests include minority issues in criminal justice, capital punishment, and media influence in criminal justice. She is the author of *Race, Ethnicity, and the Criminal Justice System* (2010).

Jessica Williams attends Loyola Law School in New Orleans, having graduated summa cum laude from North Carolina Agricultural and Technical State University with a double bachelor's degree in psychology and criminal justice.

Kathryn Woods is assistant director of the Office of Women's Programs and Studies at Colorado State University, Fort Collins. She received her M.S.W. from Arizona State University.

Lisa Anne Zilney is an assistant professor of justice studies at Montclair State University in New Jersey. She earned her M.S. in criminal justice from Eastern Kentucky University, and her Ph.D. in sociology from the University of Tennessee. Her research interests revolve around issues of social justice, including family violence, drugs and society, environmental inequities, and sexual offenses and offenders.

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

VOLUME 3
FAMILY AND SOCIETY

Michael Shally-Jensen, Editor

ABC-CLIO

Santa Barbara, California • Denver, Colorado • Oxford, England

A

ABORTION

Jonelle Husain

Abortion refers to the premature end or termination of a pregnancy after implantation of the fertilized ovum in the uterus and before fetal viability or the point in fetal development at which a fetus can survive outside a woman's womb without life support. The term refers to the expulsion of the fetus, fetal membranes, and the placenta from the uterus and includes spontaneous miscarriages and medical procedures performed by a licensed physician intended to end pregnancy at any gestational age.

Abortion Procedures

An early abortion procedure, performed during the first trimester, or the first 12 weeks of pregnancy, is one of the safest types of medical procedures when performed by a trained health care professional in a hygienic environment. The risk of abortion complications is minimal, with less than 1 percent of all patients experiencing a serious complication. In the United States, the risk of death resulting from abortion is less than 0.6 per 100,000 procedures. The risks associated with abortion are less than those associated with childbirth.

There are two major types of procedures used to terminate a pregnancy. These procedures include both medical abortions and surgical abortions. The type of procedure that will be used is selected by the physician and the patient after determining the stage of pregnancy. Early-term abortions, or those occurring in the first trimester of pregnancy, may be either medical or surgical. Surgical abortions are used in later-stage abortions, or those occurring in the second or third trimester.

Early First-Trimester Abortions

Early first-trimester abortions are defined as those performed within the first eight weeks of pregnancy. Two procedures may be used: medical (nonsurgical) or surgical abortions. Medical abortions involve the administration of oral medications that cause expulsion of the fetus from the uterus (miscarriage). Medical abortions include the use of RU-486, commonly referred to as the abortion pill, as well as other combinations of drugs, depending on the stage of pregnancy. Typically, a combination of methotrexate and misoprostol are used to end pregnancies of up to seven weeks in duration. RU-486, a combination of mifepristone and misoprostol, is used to terminate pregnancies between seven and nine weeks in duration. Women opting for a medical abortion are typically administered methotrexate orally or by injection in a physician's office. Misoprostal tablets are administered orally or vaginally during a second office visit that occurs five to seven days later. The procedure is then followed up with a visit to the physician to confirm complete expulsion of the fetus and the absence of any complications. Many women find that medical abortions are more private and more natural than surgical abortions.

A surgical abortion involves the use of suction aspiration to remove the fetus from the uterus. Surgical abortion is generally used to end pregnancies between 6 and 14 weeks duration. Vacuum aspiration uses suction to expel the contents of the uterus through the cervix. Vacuum aspiration is performed in a doctor's office or clinic setting and typically takes less than 15 minutes. Patients receive an injection into the cervix to numb the cervical area. The physician inserts dilators to open the cervix, where a sterile cannula is inserted. The cannula, attached to tubing that is attached to a vacuum or manual pump, gently empties the contents of the uterus. The procedure is highly effective and is used most often in first-trimester abortions.

Second-Trimester Abortions

Second-trimester abortions refer to abortions performed between the 13th and 20th weeks of pregnancy. In some cases, second-trimester abortions may be performed as late as the 24th week of pregnancy. Second-trimester abortions carry a greater risk of complications due to the later stage of fetal development and are performed under local or general anesthesia. The cervix is dilated and a curette or forceps are inserted through the vagina, and the fetus is separated into pieces and extracted. Second-trimester abortions are typically performed in cases where a woman has not had access to early medical care and has only recently had a pregnancy confirmed, or in cases where a recent diagnosis of genetic or fetal developmental problems has been made.

The available abortion procedures provide many options to women. Pregnancy terminations performed between the 6th and 12th weeks of pregnancy are safe and include both medical and surgical procedures. Medical abortions, accomplished with a combination of drugs that induce a miscarriage, provide women with the option of

ending a pregnancy in the privacy of her home in a relatively natural way. Surgical abortion, by using vacuum aspiration, gently removes the fetus from the uterus and includes minimal risks. These risks are usually limited to cramping and bleeding that last from a few hours to several days after the procedure. Most women who abort during the first trimester are able to return to their normal routines the following day. Antibiotics are generally prescribed following a first-trimester abortion to decrease any risk of infection, and a follow up visit several weeks later makes first-trimester abortions safer than childbirth.

Abortion as a Social Issue

As a contemporary social issue, elective abortion raises important questions about the rights of pregnant women, the meaning of motherhood, and the rights of fetuses. Since the late 1960s, abortion has been a key issue in the contemporary U.S. culture wars. The term *culture wars* refers to ongoing political debates over contemporary social issues, including not only abortion but also homosexuality, the death penalty, and euthanasia. Culture wars arise from conflicting sets of values between conservatives and progressives. The culture war debates, particularly those surrounding the issue of abortion, remain contentious among the American public. The debates have resulted in disparate and strongly held opinions and have resulted in the emergence of activist groups taking a variety of positions on abortion. Activists include those who support a woman's right to abortion (epitomized in groups such as the National Abortion Rights Action League—NARAL Pro-Choice America) and those who oppose abortion on religious or moral grounds (such as right-to-life organizations).

Researchers suggest that the continuing debates over abortion have called into question traditional beliefs about the relations between men and women, raised vexing issues about the control of women's bodies and women's roles, and brought about changes in the division of labor in the family and in the broader occupational arena. Elective abortion has called into question long-standing beliefs about the moral nature of sexuality. Further, elective abortion has challenged the notion of sexual relations as privileged activities that are symbolic of commitments, responsibilities, and obligations between men and women. Elective abortion also brings to the fore the more personal issue of the meaning of pregnancy.

Historically, the debate over abortion has been one of competing definitions of motherhood. Pro-life activists argue that family, and particularly motherhood, is the cornerstone of society. Pro-choice activists argue that reproductive choice is central to women controlling their own lives. More contemporary debates focus on the ethical and moral nature of personhood and the rights of the fetus. In the last 30 years, these debates have become politicized, resulting in the passage of increasingly restrictive laws governing abortion, abortion doctors, and abortion clinics.

Early Abortion Laws

Laws governing abortion up until the early 19th century were modeled after English Common Law, which criminalized abortion after "quickening," or the point in fetal gestational development where a woman could feel fetal movement. Prior to quickening, the fetus was believed to be little more than a mass of undifferentiated cells. Concurrent with the formal organization of the American Medical Association in the mid-1800s, increasingly restrictive abortion laws were enacted. In general, these laws were designed to decrease competition between physicians and midwives, as well as other lay practitioners of medicine, including pharmacists. A few short years later, the New York Society for the Suppression of Vice successfully lobbied for passage of the Comstock Laws, a series of laws prohibiting pornography and banning contraceptives and information about abortion. With the formal organization of physicians and the enactment of the Comstock Laws, pregnancy and childbirth shifted from the realm of privacy and control by women to one that was increasingly public and under the supervision of the male medical establishment. Specifically, all abortions were prohibited except therapeutic abortions that were necessary in order to save the life of the pregnant woman. These laws remained unchallenged until the early 1920s, when Margaret Sanger and her husband were charged with illegally distributing information about birth control. An appeal of Sanger's conviction followed, and contraception was legalized, but only for the prevention or cure of disease. It was not until the early 1930s that federal laws were enacted that prohibited government inference in the physician-patient relationship as it related to doctors prescribing contraception for their women patients. Unplanned pregnancies continued to occur, and women who had access to medical care and a sympathetic physician were often able to obtain a therapeutic abortion. These therapeutic abortions were often performed under less-than-sanitary conditions because of the stigma attached to both the physicians performing them and to the women who sought to abort.

By the 1950s, a growing abortion reform movement had gained ground. The movement sought to expand the circumstances under which therapeutic abortions were available; it sought to include circumstances in which childbirth endangered a woman's mental or physical health, where there was a high likelihood of fetal abnormality, or when pregnancy was the result of rape or incest. The abortion reform movement also sought to end the threat of "back-alley" abortions performed by questionable practitioners or performed under unsanitary conditions that posed significant health risks to women and often resulted in death.

By the 1960s, although the abortion reform movement was gaining strength, nontherapeutic abortion remained illegal, and therapeutic abortion was largely a privilege of the white middle to upper classes. A growing covert underground abortion rights collective emerged in the Midwest. Known as the Jane Project, the movement included members of the National Organization for Women, student activists, housewives, and mothers who believed access to safe, affordable abortion was every woman's right. The

Jane Project was an anonymous abortion service operated by volunteers who provided counseling services and acted in an intermediary capacity to link women seeking abortions with physicians who were willing to perform the procedure. Members of the collective, outraged over the exorbitant prices charged by many physicians, learned to perform the abortion procedure themselves. Former members of the Jane Project report providing more than 12,000 safe and affordable abortions for women in the years before abortion was legalized.

Activists involved in the early movement to reform abortion laws experienced their first victory in 1967, when the Colorado legislature enacted less restrictive regulations governing abortion. By 1970, four additional states had revised their criminal penalties for abortions performed in the early stages of pregnancy by licensed physicians, as long as the procedures followed legal procedures and conformed to health regulations. These early challenges to restrictive abortion laws set into motion changes that would pave the way to the legal right to abortion.

The Legal Right to Abortion

Two important legal cases reviewed by the U.S. Supreme Court in the 1970s established the legal right to abortion. In the first and more important case, *Roe v. Wade* (1973), the court overturned a Texas law that prohibited abortions in all circumstances except when the pregnant woman's life was endangered. In a second companion case, *Doe v. Bolton* (1973), the high court ruled that denying a woman the right to decide whether to carry a pregnancy to term violated privacy rights guaranteed under the U.S. Constitution's Bill of Rights. These decisions, rendered by a 7–2 vote by the Supreme Court justices in 1973, struck down state statutes outlawing abortion and laid the groundwork for one of the most controversial public issues in modern history.

The Supreme Court decisions sparked a dramatic reaction by the American public. Supporters viewed the Court's decision as a victory for women's rights, equality, and empowerment, while opponents viewed the decision as a frontal attack on religious and moral values. Both supporters and opponents mobilized, forming local and national coalitions that politicized the issue and propelled abortion to the forefront of the political arena. Opponents of abortion identified themselves as "antiabortion" activists, while those who supported a woman's right to choose whether to carry a pregnancy to term adopted the term "pro-choice" activists. These two groups rallied to sway the opinions of a public that was initially disinterested in the issue.

The Early Years Post *Roe*

Following the *Roe* decision, antiabortion activists worked to limit the effects of the Supreme Court decision. Specifically, they sought to prevent federal and state monies from being used for abortion. In 1977, the Hyde Amendment was passed by Congress, and limits were enacted that restricted the use of federal funds for abortion. In the ensuing

years, the amendment underwent several revisions that limited Medicaid coverage for abortion to cases of rape, incest, and life endangerment. The Hyde Amendment significantly impacted low-income women and women of color. It stigmatized abortion care by limiting federal and state health care program provisions for basic reproductive health care.

As antiabortion and pro-choice advocates mobilized, their battles increasingly played out in front of abortion clinics throughout the country, with both groups eager to promote their platforms about the legal right to abortion. Abortion clinics around the country became the sites of impassioned protests and angry confrontations between activists on both sides of the issue. Confrontations included both antiabortionists who pled with women to reconsider their decision to abort, and pro-choice activists working as escorts for those who sought abortions, shielding the women from the other activists who were attempting to intervene in their decision. Many clinics became a battleground for media coverage and 30-second sound bites that further polarized activists on both sides of the issue. Moreover, media coverage victimized women who had privately made a decision to abort by publicly thrusting them into the middle of an increasingly public battle.

By the mid-1980s, following courtroom and congressional defeats to overturn the *Roe v. Wade* decision and a growing public that was supportive of the legal right to abortion, antiabortion activists broadened their strategies and tactics to focus on shutting down abortion clinics. Moreover, antiabortionist groups began identifying themselves as "pro-life" activists to publicly demonstrate their emphasis on the sanctity of all human life and to reflect their concern for both the pregnant woman and the fetus. The change in labels was also an attempt to neutralize the negative media attention resulting from a number of radical and militant antiabortion groups that emerged in the 1980s, many of which advocated the use of intimidation and violence to end the availability of abortion and to close down clinics. For these more radical groups, the use of violence against a fetus was seen as justification for violence that included the bombing and destruction of abortion clinics and included, in some cases, the injury or murder of physicians and staff working at the clinics.

The polarization of activists on both sides of the issue and the increased incidence of violence at abortion clinics resulted in the passage of the Freedom of Access to Clinic Entrance Act (FACEA). FACEA prohibited any person from threatening, assaulting, or vandalizing abortion clinic property, clinic staff, or clinic patients, as well as prohibited blockading abortion clinic entrances to prevent entry by any person providing or receiving reproductive health services. The law also provided both criminal and civil penalties for those breaking the law. Increasingly, activists on both sides of the issue shifted their focus from women seeking to abort and abortion clinics to the interior of courtrooms, where challenges to the legal right to abortion continue to be heard. Meanwhile, increasingly restrictive laws governing abortion and abortion clinics were passed.

The Later Years Post *Roe*

With the legal right to abortion established and the battle lines between pro-life and pro-choice activists firmly drawn, key legislative actions impacting the legal right to abortion characterized the changing landscape of the abortion debate. In the 1989 *Webster v. Reproductive Health Services* case, the Supreme Court affirmed a Missouri law that imposed restrictions on the use of state funds, facilities, and employees in performing, assisting with, or counseling about abortion. The decision for the first time granted specific powers to states to regulate abortion and has been interpreted by many as the beginning of a series of decisions that might potentially undermine the rights granted in the *Roe* decision.

Following the *Webster* case, the U.S. Supreme Court reviewed and ruled in *Planned Parenthood of Southeastern Pennsylvania v. Casey* (1992), a case that challenged five separate regulations of the Pennsylvania Abortion Control Act as being unconstitutional under *Roe v. Wade.* Specifically, the Pennsylvania act required doctors to provide women seeking abortion with a list of possible health complications and risks of abortion prior to the procedure, required married women to inform their husbands of an abortion beforehand, required parental or guardian consent for minors having an abortion, imposed a 24-hour waiting period before a woman could have an elective abortion, and mandated specific reporting requirements for clinics where abortions were performed. The court upheld four of the five provisions, striking down the spousal consent rule, which was found to give excessive power to husbands over their wives and possibly exacerbate spousal abuse. Moreover, the Court allowed for waivers for extenuating circumstances in the parental notification requirement. *Casey* was the first direct challenge to *Roe,* and the court modified the trimester framework that *Roe* had created. It also restructured the legal standard by which restrictive abortion laws were evaluated. *Casey* gave states the right to regulate abortion during the entire period before fetal viability, and they could do so for reasons other than to protect the health of the mother. The increased legal rights provided to states to impose restrictions on laws governing abortion resulted in a tightening of the requirements for clinics providing abortions and adversely affected many women who sought abortions, particularly low-income women and women who lived in rural areas. As a result of the increased power granted to states to regulate abortion, women were required to attend a pre-abortion counseling session before the procedure, in which they received information on the possible risks and complications from abortion, and they were required to wait at least 24 hours after the counseling session to undergo the procedure. For poor women or for women who lived in states where there were no abortion clinics available, the costs associated with the procedure rose dramatically because of the associated travel and time off from work.

Since *Casey,* the Supreme Court has heard only one case related to abortion. In *Stenberg v. Carhart* (2000), the constitutionality of a Nebraska law prohibiting so-called partial birth abortions was heard by the high court. The Nebraska law prohibited this

form of abortion—known as intact dilation and extraction (IDX) within the medical community—under any circumstances. Physicians who violated the law were charged with a felony, fined, sentenced to jail time, and automatically had their license to practice medicine revoked. The IDX procedure is generally performed in cases where significant fetal abnormalities have been diagnosed and represents less than one-half of one percent of all abortions performed. The pregnancy is terminated by partially extracting the fetus from the uterus, collapsing its skull, and removing its brain. In the *Stenberg* case, the court ruled that the law was unconstitutional because it did not include a provision for an exception in cases where the pregnant woman's health was at risk. However, in 2007, the decision was reversed in *Gonzales v. Carhart,* the ban reinstated. The court held that the IDX prohibition did not unduly affect a woman's ability to obtain an abortion.

The Shift in Recent Debates

The differences between activist groups involved in the abortion debates have traditionally crystallized publicly as differences in the meaning of abortion. Pro-life activists define abortion as murder and a violation against the sanctity of human life. Pro-choice activists argue that control of reproduction is paramount to women's empowerment and autonomy. More recently the issues have focused on questions about the beginning of life and the rights associated with personhood. Technological advancements in the field of gynecology and obstetrics are occurring rapidly and influencing how we understand reproduction and pregnancy. Advances in the use of ultrasound technology, the rise in fetal diagnostic testing to identify genetic abnormalities, and the development of intrauterine fetal surgical techniques to correct abnormalities in the fetus prior to birth all contribute to defining the fetus as a wholly separate being or person from the woman who is pregnant.

These new constructions of the fetus as a separate person, coupled with visual technologies that allow for very early detection of pregnancy and images of the developing fetus, give rise to debates about what constitutes personhood and the rights, if any, the state of personhood confers upon the entity defined as a person. The issue of viability, defined as the developmental stage at which a fetus can survive without medical intervention, is complicated in many respects by these technological advances. Those who identify themselves as pro-life argue that all life begins at the moment of conception and point to technology to affirm their position. Many pro-life activists argue that the fetus is a preborn person with full rights of personhood—full rights that justify all actions to preserve, protect, and defend the person and his or her rights before and after the birth process. Those who identify themselves as pro-choice argue that personhood can only be conferred on born persons and that a developing fetus is neither a born person nor a fully developed being. These contemporary debates concerning personhood and rights continue to divide the public and are particularly germane to the issue of fetal surgery. Fetal surgery is cost-prohibitive, success rates are very low, and some argue that the scarcity of

medical resources should be directed toward a greater number of patients or toward the provision of services that have greater success rates.

At the state level, the battle has recently been fought in terms of pre-abortion counseling, including the issue of whether to require ultrasounds and whether pregnant women should be shown the ultrasound images. Twenty states now require that an ultrasound be done prior to an abortion and that the pregnant woman be given an opportunity to view the image. One state, Oklahoma, requires both that an ultrasound be done and that the woman view the image, although the law is currently in litigation (National Right to Life Committee 2010).

The Impact of Restrictive Abortion Legislation

Abortion is one of the most common and safest medical procedures that women age 15 to 44 can undergo in the United States. According to the U.S. Census Bureau's *2010 Statistical Abstract,* which combines figures reported by the Centers for Disease Control and the individual states, approximately 1.2 million abortions were performed in the United States in 2005. Among women aged 15 to 44, the abortion rate declined from 27 out of 1,000 in 1990 to 19.4 out of 1,000 in 2005. The number of abortions and the rate of abortions have declined over the years, partly as a result of improved methods of birth control and partly as a result of decreased access to abortion services.

The number of physicians who provide abortion services has declined by approximately 39 percent, from 2,900 in 1982 to less than 1,800 in 2000. Although some of the decline is the result of a shift from hospital-based providers to specialized clinics offering abortion procedures, this shift is further exacerbated by the number of clinics that have closed in recent years due to increased regulatory requirements that make remaining open more difficult. Moreover, the decline in providers of abortion services means that some women will experience a more difficult time in locating and affording services. Today, only 13 percent of the counties in the United States provide abortion services to women; that is, abortion services are unavailable in 87 percent of U.S. counties. Moreover, the Hyde Amendment preventing federal funds from being used to pay for abortion services was reaffirmed in March 2010 by President Barack Obama as part of an overall health care reform legislative package.

The Food and Drug Administration's (FDA) approval of Plan B, an emergency contraceptive best known as "the morning after pill" and mifepristone (RU-486) for early medication-induced abortions may be shifting the location of abortion procedures away from abortion clinics to other locations such as family planning clinics and physicians' offices. However, neither of these recent FDA approvals eliminates the need for reproductive health care that includes abortion care. While the issue of abortion may spawn disparate opinions about the meaning of motherhood, family values, the changing dynamics of male-female relations, and sexual morality, as well as raise issues about personhood and rights, unintended pregnancies disproportionately

impact women and their children. This is especially true of poor women and women of color whose access to reproductive health care may be limited or nonexistent. Historically, women from the middle and upper classes have had access to abortion—be that access legal, illegal, therapeutic or nontherapeutic—while women from less privileged backgrounds have often been forced to rely on back-alley abortionists whose lack of training and provision of services cost women their health and, often, their lives.

See also **Birth Control; Teen Pregnancy**

Further Reading

Ehrenreich, Nancy, ed., *The Reproductive Rights Reader: Law, Medicine, and the Construction of Motherhood.* New York: Routledge, 2008.

Ginsberg, Faye, D., *Contested Lives: The Abortion Debate in an American Community,* rev. ed. Berkeley: University of California Press, 1998.

Herring, Mark Youngblood, *The Pro-Life/Choice Debate.* Westport, CT: Greenwood Press, 2003.

Luker, Kristen, *Abortion and the Politics of Motherhood.* Berkeley: University of California Press, 1984.

Maxwell, Carol J. C., *Pro-Life Activists in America: Meaning, Motivation, and Direct Action.* Cambridge, England: Cambridge University Press, 2002.

McBride, Dorothy E., *Abortion in the United States: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2008.

National Right to Life Committee, "Woman's Right to Know: States that Offer Ultrasound Option" (September 1, 2010). http://www.nrlc.org/WRTK/UltrasoundLaws/StateUltrasoundLaws.pdf

Page, Cristina, *How the Pro-Choice Movement Saved America: Freedom, Politics, and the War on Sex.* New York: Basic Books, 2006.

Riddle, John M., *Eve's Herbs: A History of Contraception and Abortion in the West.* Cambridge, MA: Harvard University Press, 1997.

Rose, Melody, *Safe, Legal, and Available? Abortion Politics in the United States.* Washington, DC: CQ Press, 2007.

Shrage, Laurie, *Abortion and Social Responsibility: Depolarizing the Debate.* New York: Oxford University Press, 2003.

Solinger, Ricki, *Pregnancy and Power: A Short History of Reproductive Politics in America.* New York: New York University Press, 2005.

ADDICTION AND FAMILY

Angela Sparrow

Addiction has become an increasingly large problem in the United States over the past few decades. Jails have become overcrowded with those who are caught selling and using addictive substances. It has become the social norm for celebrities to be in and out of addiction rehabilitation centers every other week, and activities such as gambling and

overeating have been labeled, along with substances such as alcohol and cocaine, as potentially addictive.

Once a narrowly defined term, *addiction,* or *dependence,* has been expanded to describe behaviors or activities that one wouldn't normally think of as being addictive. Among the more recent uses of the term are food addicts, sex addicts, and Internet addicts. With this expanding definition has come a heightened desire to uncover the causes behind addiction, whether it is to a traditional addictive drug or to a certain behavior. While the use of certain substances and certain activities often become addictions, not everyone who engages in these activities or consumes these substances becomes addicted to them, further complicating the issue. As a result, addiction counselors believe that there are certain reasons why one person becomes addicted more easily than another. Personality and biological factors are among some of the proposed reasons. Research into the topic has produced many debates over the subject of dependency and addiction, including conflicts over the cause and treatment of addiction and whether the term should apply to behavioral issues as well as to mood-altering substances.

Addiction has begun to play a large role in family life in the United States. Conceptions of harmonious family life suggest that serious problems such as addiction exist only in other people's families. As a consequence of this view, many families fail to recognize, deal with, and recover from a problem in their midst. The development, maintenance, and treatment of substance abuse are intimately connected with families. Families that have an addicted individual undergo a large assortment of effects, ranging from children lacking a parent due to addiction, to parents struggling to help their child to overcome an addiction, to divorce of marital partners when the lack of communication inherent with addiction leads to a breakdown of the marriage. Regardless of the stance one takes on the origin of addiction, it is important to remember that all addictions can be managed, and overcoming addiction is often achieved with the help of loved ones. Thus, family plays a central role in the recovery process.

Background

Addiction is a recurring compulsion or need by an individual to engage in some particular activity or to consume some specific substance. The activity or substance becomes the sole focus in an addicted individual's life. He or she begins to lose interest in other activities, loses focus on goals that were once important, and will begin to abandon normal behavior in order to gain access to the addictive activity. As the need for the activity or substance grows, the individual will do anything for the substance. In extreme cases, the addict even breaks laws in order to continue engaging in the activity or substance. Family is often the target of the illegal activity and may pay stiff penalties in personal and financial security as an addiction (particularly to illicit drugs) escalates.

When the term *addiction* was first coined, it clearly referred to the use of a tolerance-inducing drug. This definition recognizes that humans can become quickly addicted to

various drugs. The modern understanding of chemical transmission in the brain, and how substances can lead to addiction, began in the mid-1800s in France. From this initial research by Claude Bernard, scientists began to discover how the body responds to drugs.

Addictions develop because the substance or activity produces a pleasure response in the individual, who then wants to receive more of the pleasure. For example, if an individual ingests a substance such as crack cocaine, he or she will feel a euphoric high feeling. As the drug enters the brain, it triggers the body's natural pleasure sensor to release endorphins, which results in a pleasurable sensation. The individual wants to continue to feel this euphoric high, but, as the addiction builds, the individual's tolerance to the substance grows. Over time, greater dosages of the drug must be used to produce an identical effect.

Over the years, however, as a medical model of behavior gained prominence, addiction began to be defined as a disease. This is in reference to the physiological changes that occur when one becomes addicted to a substance. The influence of both the medical and the psychological communities has been crucial in the area of addiction research. Two types of addiction—physical dependence and psychological dependence—have been identified through their combined efforts.

Physical Addiction

Physical addiction is determined by the appearance of withdrawal symptoms when the substance is suddenly discontinued. Withdrawal refers to the symptoms that appear when a drug that is regularly used for a long time is suddenly discontinued or decreased in dosage. The symptoms of withdrawal are often the opposite of the drug's direct effect. Sudden withdrawal from addictive drugs can be harmful or even fatal, so the drug should not be discontinued without a doctor's supervision and approval. Part of the rehabilitation process is to wean the addict off of the drugs in a safer and less traumatic manner.

Alcohol, nicotine, and antidepressants are examples of substances that, when abused, can produce physical addiction. The speed at which an individual develops an addiction depends on the substance, the frequency of use, the intensity of the pleasure that the drug induces, the means of ingestion, and the individual person.

Psychological Addiction

Psychological addiction is the dependency of the mind and leads to psychological withdrawal symptoms such as cravings, insomnia, depression, and irritability. Psychological addiction is believed to be strongly associated with the brain's reward system. It is possible to be both psychologically and physically dependent at the same time. Some doctors make little distinction between the two types of addiction, because they both result in substance abuse. The cause and characteristics of the two types of addiction are quite different, as are the types of treatment. Psychological dependence does not have to

be limited only to substances; activities and behavioral patterns can be considered addictions within this type of dependency. The popularity of Internet usage, video games, pornography, and social networking services such as Facebook and Twitter have all been characterized in this manner.

Medical Debates

Not all doctors agree on what constitutes addiction. Traditionally, addiction has been defined as only possible when a substance is ingested that temporarily alters the natural chemical behavior of the brain to produce the euphoric high associated with these drugs. However, over time, people have begun to feel that there should be an alteration of the definition of addiction to include psychological dependency on such things as gambling, food, sex, pornography, computers, work, exercise, cutting, shopping, and so forth. These activities do not alter the natural chemical behavior of the brain when they are performed; thus, they do not fit into the traditional views of addiction, despite their impacts on social interactions and family life.

Those who support the contemporary view of addiction show that symptoms mimicking withdrawal occur when the individual stops the addictive behavior, even if it is not a physiologically acting substance. Those who support the traditional view purport that these withdrawal-like symptoms are not strictly reflective of an addiction, but rather of a behavioral disorder. Proponents of the traditional view say that the overuse of the term may cause the wrong treatment to be used, thus failing the person with the behavioral problem.

The contemporary view of dependency and addiction acknowledges the possibility that individuals who are addicted to a certain activity feel a sense of euphoria, much like the euphoria received from addictive substances. For example, when a person who is addicted to shopping is satisfying his or her craving by engaging in the behavior, chemicals that produce a feel-good effect, called endorphins, are produced and released within the brain, enforcing the person's positive associations with the behavior. Additionally, there could be negative, real-life consequences to participation in the activity, including isolation from family and friends, increased debt, and so forth.

Debate over the Causes of Addiction

The causes of addiction have been debated for years within the scientific community. One school of thought believes that addiction is a disease that cannot be controlled by the individual. This theory states that addiction is an inherited disease, and an individual with the inherited trait of the disease is permanently ill with the addiction located at a genetic level. Even those with long periods of overcoming the addiction will always contain the disease. This viewpoint states that if one's parent was addicted to something, whether a substance or an activity, he or she is predisposed to also develop the addiction. Even if the person avoids the substance or activity, he or she still technically has an addiction to it. The idea that "alcoholism runs in families" has a long tradition in the

substance abuse field. Studies that compare alcoholism rates of natural and adopted children indicate that the adopted children of alcoholics have significantly lower rates of alcoholism than do their biologically related progeny. Additionally, a family history of alcoholism has been linked to a younger initial age of alcohol consumption.

Another school of thought argues that addiction is a dual problem caused by both a physical and a mental dependency on chemicals along with a preexisting mental disorder. This theory says that addiction is not caused by one factor alone but instead by many factors combined. Addiction is caused not just by the fact that a person's family member had the disease of addiction, but because the person's family member had the disease of addiction in addition to being emotionally unstable and prone to finding quick ways to happiness. Clearly, when a parent is "absent" due to his or her use of mood-altering substances, the socialization of the children is affected.

The social learning model suggests that the pattern of addiction is learned by watching or modeling the behavior of others. In families where addictive behaviors and substance abuse occur, children see role models of how to participate in addictive activities. This occurs even when parents attempt to hide their addictive behaviors. The fact that persons tend to share addictions over time through the process of assortative mating provides support for the idea that two persons with similar tendencies toward addictive behaviors will likely become partnered. There is scientific research to support all concepts of the causes of addiction. No one theory has emerged as having greater veracity in explaining and predicting dependency.

Effects within the Family

Addiction is the number one disease in the United States, with one in three families having at least one addicted member. With the problem of addiction so widespread, the effects on the family have become an important subject. Addiction affects the family in many ways. An addicted individual puts stress on the rest of the family. There is often a stigma of shame associated with addiction; this shame burdens the family and makes it harder for the family to seek help for the individual because of the fear of ridicule from the outside world. There is a substantial fear of discovery, and many families may hide the addiction for years without seeking the medical attention needed to help the addicted person. A significant loss of self-esteem in the addicted individual is noticed and may cause the addiction to get worse and the addicted individual to further deteriorate.

Many families that have an individual who has the disease of addiction are overcome by denial. They try to deny that there is a problem to everyone they know, including themselves. This act of denial will often lead to exaggerated feelings and may result in explosive behavior to which the family can become emotionally exhausted. One of the most concerning aspects of addiction in the family is that most illicit drug users are fairly young, of childbearing age (18 to 35 years), and thus are exposing children to addictive substances, behaviors, and outcomes.

Addiction may sometimes produce physical effects. Domestic violence—whether physical, emotional, or sexual—is increased in families that have an addicted member, particularly someone with alcoholism. Domestic violence can occur in well-educated families as well as families with less professional backgrounds. It is predicted that members of families where abuse due to addiction takes place are more likely to require medical care. Additionally, children of substance abusers who experienced physical or sexual abuse are more likely to experience psychiatric symptoms and marital instability than those persons in whose family there was not addictive behavior.

Typically, families experiencing substance abuse witness the allocation of the addict's role to others in the family. Often this "absent parent" cedes his or her responsibilities to a child. The child then must assume duties that are inappropriate to his or her age, even having to raise himself or herself because the parents were unavailable to nurture the child. As one can imagine, this leads to strained relationships, even as the child reaches adulthood. Resentment for a lost childhood is not uncommon.

Families with an individual who is an addict often withdraw from their community, are distrustful of others, and have severe financial difficulties. The fear of exposure and subsequent stigma may force the withdrawal. If the addict is engaging in illegal activities, it is possible that he or she will be caught and sentenced to jail. Indeed, 80 percent of women inmates are mothers, and the vast majority have children under the age of 18. If the individual has no one to care for the children during the incarceration, the children might be left alone, placed in foster care, or put into state-run child care facilities.

Another issue that families with an addict must face is the fact that children could be born to an addict and be drug dependent themselves. In these cases, the infants must go through detoxification and often have a low birth weight or other lingering physical and behavioral manifestations of the addiction. If the mothers remain addicted, they may have tremendous difficulty meeting the care needs of their child. One of the factors most associated with an increase in infants addicted to substances is the wide availability and low cost of crack cocaine.

Family and Recovery

The family often plays a large role in the recovery process for the family member who is an addict. Because denial is the primary barrier to effective treatment for addiction, the addict must admit that there is a problem. It is usually the family members who help the addict admit the addiction and realize that it is something that must be overcome. Wives routinely encourage husbands to seek treatment for alcoholism, for example. Today, most recovery programs involve the family members in counseling and behavior modification, suggesting that fewer relapses occur when family support networks are readily available.

In order for an addict to successfully overcome an addiction, he or she must have the support of his or her family. It is very important to find a treatment center or a recovery program that is a good fit for the person. Programs are available that can be easily

adjusted to better suit the person undergoing the treatment. Online programs as well as weekly meetings with other recovering addicts are useful methods. There are also live-in treatment centers that take a drastic approach to help the person recover, though they may be avoided due to the stigma of their hospital-like approach.

Conclusion

Addiction is only one of many subjects relating to the importance of one's family in the world today. The debate over what specifically constitutes an addiction, its precise causes, and which disease metaphor is the most appropriate will likely continue for some time. The focus of these debates should transition into how to prevent addiction and to diminish the damaging effects that it has on the family. We live in a society where it is the social norm to associate addiction with a negative stigma. Ideally, we would live in a society where those with an addiction were embraced so that the recovery process could happen immediately with no shame or blame given to the family of the addict. When we reach this point, family members will be better able to relate to one another and will be more emotionally stable.

See also **Child Abuse; Domestic Violence—Behaviors and Causes; Drugs; Gambling; Juvenile Delinquency; Video Games; Internet (vol. 4)**

Further Reading

Ali, Syed F., and Michael J. Kuhar, eds., *Drug Addiction: Research Frontiers and Treatment Advances.* Boston: Blackwell, 2008.

Cheever, Susan, *Desire: Where Sex Meets Addiction.* New York: Simon & Schuster, 2008.

Clark, Neils, *Game Addiction: The Experience and the Effects.* Jefferson, NC: McFarland, 2009.

Harwood, Henrick J., and Tracy G. Myers, eds., *New Treatments for Addiction: Behavioral, Ethical, Legal, and Social Questions.* Washington, DC: National Academies Press, 2004.

Heyman, Gene M., *Addiction: A Disorder of Choice.* Cambridge, MA: Harvard University Press, 2009.

Lowinson, Joyce H., et al., eds., *Substance Abuse: A Comprehensive Textbook.* Philadelphia: Lippincott Williams & Wilkins, 2005.

Miller, William R., and Kathleen M. Carroll, *Rethinking Substance Abuse: What the Science Shows, and What We Should Do about It.* New York: Guilford Press, 2006.

Nutt, David, et al., eds., *Drugs and the Future: Brain Science, Addiction, and Society.* Burlington, MA: Academic Press, 2006.

ADOPTION—INTERNATIONAL AND TRANSRACIAL

Hayley Cofer and Taralyn Watson

International adoption, also known as transnational adoption or intercountry adoption, is the process of a prospective adoptive parent seeking and obtaining a child for

legal adoption from a country other than that of the parent's citizenship. For residents of the United States, children are available for adoption from over 50 countries. However, U.S. residents are ineligible to adopt from Canada, Australia, and Western Europe.

Transracial, or interracial, adoption is a form of adoption in which a family of one race legally adopts a child of a different race. Such adoptions have grown dramatically since black children started to be included regularly on adoption agency lists in the 1950s and 1960s. Also during that time, Asian children began entering the United States in adoption arrangements.

International Adoption

Residents of the United States adopt more children through intercountry adoption than do the residents of any other nation. The practice has garnered more attention in recent years as Hollywood celebrities flaunt their adoption-created families. Parents in the United States are turning increasingly to international adoptions as a way to create their families. Since 1971, close to 400,000 children have been adopted from foreign countries. Recent numbers indicate approximately 12,500 international adoptions by U.S. parents in 2009 (www.travel.state.gov). Comparably, in 1994, there were approximately 8,000 international adoptions.

The dramatic rise in international adoption can be attributed to war, poverty, and the lack of social welfare in the children's home countries. Factors in the United States that contribute to the increase in international adoptions are a disinclination toward foster care adoptions, perceived difficulties with domestic adoptions, and preference toward adopting infants in lieu of older children. As fewer healthy white infants became available in the United States, parents seeking children with these characteristics began to look elsewhere. Additionally, prospective parents in the United States have a greater amount of expendable income compared with couples from other developed countries. These financial resources are necessary, because an average international adoption processed through a private agency can easily cost between $7,500 and $30,000, depending on the child's country of origin and adoption service used (www.statistics.adoption.com).

In the United States, the vast majority of children who are in need of adoptive parents are older children. Statistics on the ages of children adopted in the United States gathered by the Adoption and Foster Care Analysis and Reporting System show that less than a quarter of the children in need of adoption are two years old or younger, whereas close to 40 percent of the adoptions that take place involve children from that age bracket. For families seeking an infant, international adoption is increasingly the answer. Most international adoptions are of infants and toddlers, with the majority of these children adopted from China, Guatemala, Russia, and South Korea. The number of children adopted from each of these countries varies from year to year, but these countries

have been generally supportive of international adoptions. Increased infertility rates have also played a role in the rise in international adoptions. Infertility rates have been on the rise as more and more couples in the United States choose to postpone having children until later in life. For some of these couples, their goal of having a family can only be realized with an adoption.

With the large number of internationally adopted children entering the United States each year come many challenges concerning cultural socialization, developmental delays as a result of poor health, and potential behavioral issues. The language barrier alone causes many of the educational and social problems faced by children adopted from other countries. Additionally, these children sometimes face medical issues. According to the *International Adoption Guidebook,* children who are adopted from other countries are at risk for numerous medical conditions; the five most prevalent are hepatitis, HIV, fetal alcohol spectrum disorder, reactive attachment disorder, and sensory integration disorder. This creates special challenges for these families once they have navigated the bureaucracy to add the child to their family.

Popular International Adoption Countries

South Korean Adoptions

The Korean War (1950–1953) began the largest wave of international adoptions. In 1955, Harry Holt, an Oregon farmer and his wife Bertha, were so touched by the situation of the orphans from the Korean War that they adopted eight children from South Korea. This story sparked widespread media interest around the country, and many other Americans became eager to adopt South Korean children. In response, the Holts created Holt International Children's Services, which, by 2007, had placed around 60,000 Korean orphans into U.S. homes.

Foreign adoptions became so prevalent after the war that a special agency was created under the Ministry of Social Affairs in South Korea. In the 1950s, the majority of children adopted overseas were the mixed-race children of Korean women and U.S. servicemen. These children were referred to as the "dust of the streets" and were often treated cruelly in Korea. Eventually, the practice of adoption became so widespread in South Korea that not only mixed-race children were sent for adoption, but children of poverty-stricken families were put up for adoption as well. South Korea became the largest supplier of children to the United States and other developed countries. Since the end of the Korean War, over 200,000 Korean children have been sent overseas for adoption, 150,000 of them to the United States. To this day, Koreans comprise the largest group of adoptees in both the United States and Western Europe. Because unmarried Korean women often face a severe social stigma for nonmarital births, they are likely to put up their children for adoption because this makes the women eligible for substantial financial support.

Vietnamese Adoptions

In the 1970s, the Vietnam War was responsible for another wave of international adoptions by U.S. families. In 1975, Operation Baby Lift brought 2,000 Vietnamese and mixed-race children to the United States for adoption during the final days of the war. Critics questioned whether this hasty evacuation was in the best interest of the children. The most contentious point was whether these children were technically orphans who qualified for adoption. This operation was plagued with lost and inaccurate records, casting a negative light on international adoption. In several well-publicized instances, birth parents or other relatives later arrived in the United States requesting custody of children who had already been adopted by U.S. families. This effort was also criticized as another example of U.S. cultural imperialism.

Guatemalan Adoptions

Guatemala has in the recent past been a popular country for adopting U.S. couples; however, the number of Guatemalan adoptions has been dramatically curtailed, in part because of plans initiated by the former president of Guatemala, Oscar Berger. He announced that, as of 2008, all intercountry adoptions would be suspended. Thus, according to the U.S. State Department, whereas between 2004 and 2008 adoptions from Guatemala ranged from between 3,200 and 4,700 per year, by 2009, the figure had dropped to 756.

One of the primary reasons that so many children were available for so long in Guatemala relates to high levels of poverty, where birth parents may not be able to adequately care for all of their children and perceive adoption as a way to better their child's life. There also has been a long-standing concern that many Guatemalan children offered for adoption were actually stolen from their birth parents, who did not wish to tender them for adoption. As a result, Guatemalan children recently entering the United States via adoption have been subject to DNA testing to ensure that they are, in fact, eligible for adoption and that they were not kidnapped from their birth parents.

Chinese Adoptions

China routinely has a high number of children adopted by U.S. parents. This is due in part to China's one-child policy. In 1979, the Chinese government determined that Chinese couples residing in urban areas could have only one child without facing a penalty. If these couples had more than one child, they could receive jail time, pay heavy fines, and be ostracized from the community (www.china.adoption.com).

Additionally, China is a country where baby boys are revered and baby girls are seen as burdens on society. Inheritance and ties to the ancestral family are passed along the male line, so parents have a preference that their one child be a son. This is an important element in Chinese society. As a consequence of the preference for male heirs,

there are many more baby girls than baby boys available for adoption. Historically, female fetuses were more likely to be aborted, and some female infants were killed by their parents. Rather than becoming the victims of infanticide, many times baby girls in China are abandoned in temples and hospitals or in subways or railway stations. When found, these children are taken to orphanages, where they can become eligible for adoption.

Former Soviet States and Adoption

In the early years of the 21st century, the former Soviet States, including Russia and Ukraine, were competing with China for the place from which the most children were being adopted by Americans. More recently, however, the numbers of children being adopted from Russia have declined, and, in April 2010, the government announced a halt to U.S. adoptions. The cessation came as the result of a case in which a Tennessee adoptive mother "returned" a seven-year-old boy whom she had adopted in 2009, claiming that the child was violent and posed a threat to the safety of herself and her family. The Russian government later announced that adoptions would continue, leaving many U.S. couples who had made plans to adopt from Russia both pleased and anxious about the prospects for completing the process.

Benefits of International Adoption

Parents face many challenges when attempting to adopt internationally. But the benefits may outweigh the difficulties in many cases. Among the most attractive reasons for international adoption is that the children are legally available for adoption before being advertised or listed with agencies. This means that there is very little chance that birth parents will change their mind and take back the child at the last minute, as has happened with some open adoptions in the United States.

Although the bureaucratic aspects of international adoption make it unlikely that one can adopt directly at a child's birth, as can happen in open adoptions in the United States, nearly one-half of the children who are adopted internationally are under the age of one when they meet their new parents, and almost all are under the age of four. This factor is very appealing to U.S. parents who would have many options for domestic adoptions if they preferred older children but few when they prefer the youngest children.

There is a tremendous variety in the children available for adoption. They are from different countries, of different ages and genders, and they have many different needs that adoptive parents might be able to fulfill. This variety means that parents can generally find the child with whom they will have the best fit. Multicultural families lead to greater tolerance and acceptance, supporting the politics of community and unity. Famous adoptive parents Angelina Jolie and Brad Pitt have such a multicultural family. Parents who have adopted children from poor countries often cite the opportunity they have to provide for the underprivileged child as a motivating factor in their decision.

While many domestic adoption agencies have limitations on who is eligible to adopt, some foreign agencies have less stringent guidelines, perhaps permitting older parents or singles to adopt when other avenues for domestic adoption are closed to them.

Concerns of International Adoption

Because everyone dreams of a healthy, happy child, potential adoptive parents need to recognize that they may not know about medical problems. Generally, parents receive information about the child's health, but they rarely know about the birth parents' health and backgrounds. The concerns extend to whether any prenatal care was available or attained by the birth mother. Children who were cared for in orphanages may have some additional special needs related to mental health and adjustment as a result of the institutional environment, though these are often resolved relatively quickly upon arrival in their new home.

International adoption remains costly, but, again, this varies by country. Agencies usually provide a list of expenses up front so that prospective parents can plan accordingly. The costs, however, do limit those persons eligible to adopt in this manner. This has led to the suggestion that international adoption agencies sell children to the highest bidders who can pay for fees, travel, and sometimes extended stays in foreign locales. Extortion has even been reported with some agencies. These scams claim a child is available, send details about the child, and get a commitment from prospective parents who send money to the agency, only to be told later that the fees have increased and more money is needed or the child is no longer available.

Adopting internationally can be a time-consuming and tedious process. The U.S. Citizenship and Immigration Service (USCIS) is a federal agency within the Department of Justice that is responsible for overseeing citizenship issues for foreign-born persons who wish to enter the United States, including children. The USCIS must provide permission for the adoptive child to lawfully enter the United States prior to the adoption being finalized in the child's country of origin. The average time frame for an international adoption is 12 to 18 months, but much of this depends on the country of origin and whether the U.S. paperwork is prepared properly.

The State of International Adoption Today

International adoption continues to be a subject that is fraught with questions and remains controversial. These questions are important as the number of international adoptions continues to rise. It remains to be seen whether international adoptions are in the best interest of the child. Even though conditions may not be perfect in their home country, would it not be of benefit to be raised in the culture to which one is born? Will the child suffer discrimination or have difficulty identifying with their U.S.-born parents? With all of the millions of dollars spent on legal processing, could it be better spent to improve conditions in these countries so that adoptions are no longer necessary?

Although these questions and others remain unanswered, they are very important to consider, because hundreds of thousands of children and their adoptive families would like to know the answers. In the earliest years of international adoption, the concerns expressed by adoptive parents and the general public were primarily about transitioning to the new family and adjustment, with an occasional question about transmitting cultural heritage; today, the concerns are expanded.

The concerns have shifted to include legal, criminal, and ethical issues affecting both birth and adoptive parents and the children. The options for parents who would like to adopt internationally are many, but they are always in flux. For example, as countries' laws regarding immigration or their political regimes change, they are more or less likely to permit children to be adopted to foreign families. Not only do policies, laws, and procedural requirements change in other countries, they change in the United States as well. The Hague Treaty on International Adoptions, when ratified by all Hague Convention nations, is designed to help ensure ethical adoption practices so that all parties will benefit and have their rights maintained. One of the primary goals was to prevent the abduction, trafficking, or sale of children through intercountry adoption. Additional provisions were designed to protect both the birth and adoptive parents' rights. The Intercountry Adoption Act of 2000 was passed in the United States to implement the provisions of the Hague Convention Treaty, ratified by the United States in April 2008. These provisions are forcing some changes in the ways that international adoptions occur. Specifically, agencies must have a national accreditation with consistent standards of practice, and there must be a mechanism for filing complaints.

As the procedure for international adoptions changes in response to the Hague Convention, this is a confusing time for those wishing to adopt internationally. As the nations adhering to the convention change, so do those nations' policies. There are also some shifts in which of the countries are being explored by prospective U.S. parents. In 2009, according to the U.S. Department of State, 2,277 Ethiopian children were adopted by U.S. citizens, a nearly eightfold increase from 2004. Changing patterns of adoption will be interesting to monitor.

Transracial Adoption

The most common form of transracial adoption in the United States is the adoption of a black child by white parents. Several reasons influence a couple's choice to adopt transracially, such as limited numbers of white children awaiting adoption, some people feeling a connection to a different race, others just wanting to adopt a child regardless of his or her race. Most advocates of transracial adoption feel that a loving family of any race is essential for a child, and yet there are opponents who believe firmly that children should be placed solely with families of their own race.

Transracial adoptions gained popularity in the 1950s and peaked through the 1960s and 1970s. With fewer healthy white infants available for adoption, adoption agencies

began to consider placing a child of color into the home of a white family. The main reasons for the increase in transracial adoptions were long adoption waiting periods and a decreased number of white babies available due to advances in birth control, abortion, and societal acceptance of single mothers. The civil rights movement, too, with its emphasis on the breaking down of racial barriers, has been credited as a factor contributing to the increase in transracial adoptions.

The National Health Interview Survey found that 8 percent of adoptions were transracial in 1987. In 1998, the estimate of transracial or transcultural adoptions was 15 percent of the 36,000 foster children who were adopted. Of the 1.6 million children who were adopted in the United States in 2004, 17 percent were interracial adoptions and 13 percent were foreign born, according to the U.S. Census Bureau. Data compiled under the U.S. Health and Human Service's Adoption and Foster Care Analysis and Reporting System suggest that, in 2008, of the 123,000 children awaiting adoption from foster care, more than 60 percent were nonwhite.

The Debate

The numbers of transracial adoptions have increased, sparking controversy between those who do not believe that a white family can raise an African American child and those who believe that children are entitled to a loving home, no matter what racial barriers exist. The largest adversary of transracial adoptions historically and currently is the National Association of Black Social Workers (NABSW). Native Americans also oppose transracial adoptions, claiming that the practice is cultural genocide.

Arguments against Transracial Adoption

One of the main arguments against transracial adoption is that white parents will not be able to give a black child a cultural identity and survival skills in a racially diverse society. NABSW says that child socialization begins at birth, but the needs of black children differ from those of white children. Black children need to learn coping mechanisms to function in a society where racism is prevalent. Black families are capable of teaching these mechanisms in everyday life without having to seek out special projects or activities. They live their lives in a white-dominated society, and their children learn by daily interactions. Even when white adoptive families actively seek out interactions and activities with black families, they put an emphasis on the differences within their family.

Cultural support can be especially difficult to give if there is limited understanding of the cultural differences of family members. White couples are ill equipped in their understanding of African American culture to adequately prepare a child for life in an ethnic group other than that of the adoptive parents. Despite their best intentions, whites cannot fully understand life from a minority perspective, because they only experience it vicariously. The unique experiences of African Americans since their arrival on

U.S. soil mean that parenting strategies and coping mechanisms have been developed to help deflect hostility from the dominant members of society. Additionally, racial barriers exist in many different aspects of social life.

Over time, there has been a decline in the availability of white children to adopt. NABSW feels that white families adopt a black child so they do not have to wait for long periods of time to become parents. Adoption agencies cater to white middle-class prospective adoptive parents, and, because white children are not as available, the agencies try to persuade these families to adopt black children.

NABSW supports adoption agencies finding black families to adopt black children. It suggests that agencies should change adoption requirements so that black families wanting to adopt are not quickly eliminated from the process. NABSW also would like to see adoption agencies work harder to find extended family members who want to adopt and keep the child within the family. Financial help also should be available for these families, so adopted children have the opportunity to grow, develop, and socialize within the black community. In fact, NABSW has argued that the so-called genocide that results from the adoption of black children by white families could never promote the interests and well-being of black children.

In 1971, William T. Merritt, then president of NABSW, stated that black children who are in foster care or are adopted should only be in the home of a black family. His position paper the following year reiterated his perspective, and, as a consequence of the advocacy of NABSW, national adoption guidelines were changed to favor or promote race matching. In 1973, transracial placements decreased by 39 percent. In 1985, Merritt claimed that black children raised in white homes could not learn skills to function as a black person in society. He adamantly spoke out against transracial adoptions. Morris Jeff Jr., another past president of NABSW, called transracial adoption "the ultimate insult to black heritage."

Children who are adopted can sometimes face certain problems regardless of the adoptive parents' ethnicity. These problems, however, can become more intense when also dealing with racial barriers. Children placed for adoption have usually come from homes where abuse was common. They may be of an age to remember their biological parents and have unresolved conflicts because they were, in their minds, unwanted by their biological families. They often have to learn new ways of family life. In addition to adjustment issues, children who are adopted often have mental, physical, or emotional handicaps. Because adoption itself may require the child to make adjustments, the presence of racial identity questions enhances the difficulty of transitions.

Adoption comes with a certain stigma, and children who are adopted may face identity issues. Even though they accept their adoptive parents and families and appreciate being a part of the family, adopted children often have an intense desire to know their biological parents. Research shows that both adoptive parents and adult adoptees experience feelings of being stigmatized by others who question the strength of their ties

with their adoptive families. This stigma can be heightened when the adoptee's ethnicity is different from that of the adoptive family.

Along with the cultural barriers and stigma of adoption, many opposed to transracial adoption say that there are enough black families interested in adoption to eliminate the placement of black children with white families. The National Urban League identified at least 3 million black families in 2000 who were interested in adoption. Adoption agencies have been faulted for contributing to the low numbers of available black adoptive families compared with white adoptive families. Critics say that many agencies do not have enough black social workers who are competent to make assessments of black families. Black families seeking to adopt may not receive equal treatment with their white counterparts, a situation that could be improved through the employment of more black social workers in adoption agencies.

Arguments for Transracial Adoption

Legislation has stepped in to terminate discrimination in the adoption process and eliminate race as the sole factor when determining the placement of a child for adoption. The Multi Ethnic Placement Act in 1994 was created to prohibit agencies or entities that receive money from the federal government from using race, color, or national origin as the critical criteria in the adoptive or foster parent or child decisions. While the Multi Ethnic Placement Act made improvements to the process of transracial adoptions, it still allowed for agencies to take into consideration whether prospective parents could adequately care for a child from a different race. The passage of the Adoption and Safe Families Act (1996) eliminated the use of any form of discriminatory tactics that would not allow prospective parents to transracially adopt. Any states that broke the laws would face reductions in their quarterly federal funds.

Those favoring transracial adoptions say that the statistics alone should be reason enough to disregard race as the determining factor in placement. In 2008, it was estimated that 123,000 children were awaiting adoption from foster care, and one-third of those were black children. In addition, the average black child waits more than four years before a permanent placement is obtained. Some of these inequities may be relieved if more transracial placements occurred.

The argument that suggests that harm will come to transracial adoptees because of the obviousness of the adoption and the constant reminder of being adopted may be interpreted positively. A child who is of a different race will learn sooner that he or she is adopted, and being forced to recognize this will make the adoption easier to talk about, thus making for a more open relationship with the parents. It has been suggested that there are direct benefits to the child in learning early about the adoption. They include a greater openness about the adoption, a positive self-identification with the adoptive status as well as racial identity, and recognition that there is no shared biology between the parents and child. Additionally, there is a positive affirmation for the child that he or she

was chosen and wanted. Given that adoptive families are often open about the adoption and encourage their other-race children to become involved with the children's heritage, black children adopted by white parents are more likely to refer to themselves as black than are black children adopted within race. As a consequence of having to learn about more than one culture, studies suggest that these children have a greater tolerance for others different from themselves and are more accepting of cultural differences.

Because the adopted child knows that he or she was wanted by the family, there is also recognition that race is not a factor in how much the child will be loved. This visible reminder that the child was chosen to be a part of the family can help to increase the child's self-esteem. The visible differences can also help to remind the child that he or she does not share biology with the parents, but psychologically this can help the child realize that differences with the parents are expected and are not frowned upon. Any genetic expectations would be decreased as well so the child might feel less pressure to develop the same interests or talents as the parent.

Other concerns regarding the psychological health of transracially adopted persons have also been disputed. Many studies have refuted the claim that white parents are ill equipped to raise socially adapted African American children with high levels of self-esteem. Although this is a classic claim used by those opposed to transracial adoption, research data suggest that there are no significant differences in adjustment between transracially adopted children and those adopted within race. The most important factor influencing how the child adjusts to society is the age of the child at the time of adoption. Likewise, studies have not found a correlation between a child's adjustment and racial identity. It seems that the older a child is when adopted, the more problems there are with adjustment issues. However, this seemed to be the outcome whether the child was adopted by same-race or other-race parents.

The Simon-Altstein Longitudinal Study of adoption was a classic study that examined several aspects of transracial adoption. The study began in 1972, had three phases, and involved 204 families with nonwhite adopted children. The first phase of interviews asked the children about their racial identity by using the Kenneth Clark doll test. This phase concluded that the children in the study—both nonwhite and white—had no racial biases to either a black or white color doll. All knew their racial identities. Parents indicated that they used several means to introduce the racial culture of the adopted nonwhite children in the family.

The second phase of the study, conducted in 1983, measured self-esteem. The results of black, nonwhite, white adopted children, and white biological children were separated and compared. All groups had statistically equal levels of self-esteem. The transracially adopted children were asked about their relationships with their parents and white siblings. Most said that their relationship with their parents was better now in young adulthood than it had been when they were adolescents. Interestingly, this finding was the same for biological children and parents. Racial differences had no impact in most of the

relationships between the transracially adopted children and their siblings who were the biological children of their shared parents. Transracially adopted children and biological children were almost equal in choosing a parent or sibling as the ones to whom they would go if they needed help, at 46.8 percent and 45 percent, respectively.

The third phase of this study, conducted in 1991, asked again to whom they would go if they needed help. The results showed that the adopted children would still turn to their parents or siblings for help. The study's overall findings provided strong evidence that white parents are capable of raising children of another race to have high self-esteem, positive identities, and close family ties.

Looking Ahead

There are several issues that families must consider before committing to transracial adoption. The most important thing to consider is the potential parents' own racial views. Another thing to consider is that the family will be in the minority after transracially adopting. Of concern may be how the parent and other members of the family will deal with opinions expressed by those outside of the family. Prospective parents could think about adopting siblings so that each child will have a familiar face to help with the transition.

Colorblind is a term frequently used by those who promote transracial adoptions. This refers to the ideal that everyone is seen equally and is not discriminated against due to race. The term is pertinent in adoption discussions, because it is illegal for adoption agencies to discriminate because of someone's skin color. In matching parents and children for adoption, the United States will probably never be a society that is totally colorblind. Colorblindness helps to promote fairness with regard to race, a difficult but necessary task. On the other hand, critics of the concept of colorblind contend that it erases a person's heritage and culture. Being colorblind does not erase the questions that arise about visual differences within families and communities. Ignoring differences can cause hurt and resentment. Because race and culture are so closely linked, to be colorblind to someone's race is to ignore his or her culture. Experts contend that children have a right to learn about their culture so that they can pass it down to the next generation.

Transracial adoption is not only a black and white issue; children are also adopted from foreign countries, although there is very little research to date on the adjustment experiences of these parents and children. Places like China and Ukraine are popular when families decide to adopt, because the high birth rates and poor economic conditions in these locales mean that there are often children readily available. There is not as much debate about the adoption of these children as there is over black children being adopted by white families, because adoption is seen as helping these children. The idea of saving a child is an idea that supporters of transracial adoption believe can happen right here in the United States by decreasing the numbers of children of all races awaiting placement with a permanent family.

See also **Foster Care; Gay Parent Adoption; Teen Pregnancy**

Further Reading

Adoption Media, http://www.adoption.com

Adoption.com. "Cost of Adopting," 2007. http://statistics.adoption.com/information/statistics-on-cost-of-adopting.html

Berquist, Kathleen Ja Sook, *International Korean Adoption: A Fifty-year History of Policy and Practice*. Binghamton, NY: Haworth Press, 2007.

Child Welfare Information Gateway, http://www.childwelfare.gov

Dorow, Sara K., *Transnational Adoption: A Cultural Economy of Race, Gender, and Kinship.* New York: New York University Press, 2006.

Fogg-Davis, Hawley, *The Ethics of Transracial Adoption.* Ithaca, NY: Cornell University Press, 2002.

Gailey, Christine Ward, *Blue-Ribbon Babies and Labors of Love: Race, Class, and Gender in U.S. Adoption Practice.* Austin: University of Texas Press, 2010.

Marre, Diana, and Laura Briggs, eds., *International Adoption: Global Inequalities and the Circulation of Children.* New York: New York University Press, 2009.

National Association of Black Social Workers, "Position Statement on Trans-Racial Adoption." September 1972. http://darkwing.uroegon.edu/~adoption/archive/NabswTRA.htm

National Council for Adoption, http://www.adoptioncouncil.org

Patton, Sandra, *BirthMarks: Transracial Adoption in Contemporary America.* New York: New York University Press, 2000.

Quiroz, Pamela Ann, *Adoption in a Color-Blind Society.* Lanham, MD: Rowman & Littlefield, 2007.

Simon, Rita J., and Rhonda M. Roorda, *In Their Own Voices Transracial Adoptees Tell Their Stories.* New York: Columbia University Press, 2000.

Simon, Rita J., and Rhonda M. Roorda, *In Their Parents' Voices: Reflections on Raising Transracial Adoptees.* New York: Columbia University Press, 2007.

Trenka, Jane Jeong, *Outsiders Within: Writing on Transracial Adoption.* Cambridge, MA: South End Press, 2006.

United States Department of Health and Human Services, http://www.hhs.gov

U.S. Department of State, Bureau of Consular Affairs. http://www.travel.state.gov

Volkman, Toby Alice, ed., *Cultures of Transnational Adoption.* Durham, NC: Duke University Press, 2005.

Yancy, George A., and Richard Lewis Jr., *Interracial Families: Current Concepts and Controversies.* New York: Routledge, 2009.

AFRICAN AMERICAN FATHERS AND ABSENTEEISM

Aaron D. Franks

African American fathers have come under much scrutiny in recent years. Most notable is the attention given to nonresidential fathers (those who do not live in the same home

as their child), or what are sometimes referred to as absentee fathers. From the rise in African American juvenile crime to the increase in single-parented homes headed by black women, the African American man as a father has been consistently blamed for such occurrences. Statistics affirm that the majority of black children are without the presence of a father. About 70 percent of all African American births occur to unmarried women, and over 80 percent of African American children will spend some years of their childhood without a father in the home (Nelson, Clampet-Lundquist, and Edin 2002). With statistics such as these, the black father's role in the family has been closely examined. Although the validity of a number of arguments that blame black male fathering for many social ills seems legitimate, a number of speculations are false. As with most human endeavors, there are those who perform well and those who do not excel at the task of fatherhood. The role of black fathers is one of the strongest and most important traditions in the black community.

Background

Historical Influence

There is no question that, in their earliest years in the New World, enslaved African Americans were concerned about their fathers. Their loyalty to their fathers (and mothers) served as a target in the efforts of their white slaveholders to break their family bonds. In her book *Ain't I a Woman: Black Women and Feminism,* bell hooks asserts that scholars have examined and emphasized the impact that slavery has had on the consciousness of the black male. These scholars argued that black men, more so than black women, were the primary victims of the institution of slavery. She documents the case that "chauvinist historians and sociologists" have provided the American public with a perspective on slavery in which the most malicious and dehumanizing impact of slavery on the lives of black people was that black men were stripped of their masculinity. Historians and psychologists have argued that the overall interruption, but particularly the disbanding, of pre-emancipation black family structure has had an undeniable effect on family life. The fact that the African American father is a viable and resourceful entity in the home remains undeniable.

Media Influence

The traditional as well as unorthodox depictions of the strong African American father of the late 1970s and early 1980s in such programs as *Goodtimes* (James Evans) and *The Jeffersons* (George Jefferson), provided a glimpse into the more socially predominant view of the black father as strong, stern, and often frustrated due to his status as a black man in the United States. Although many of these stereotypes would have been true and relevant to the times, they also created a stigma of anger and questionable judgment on behalf of the notable black fathers who were portrayed. Viewers may recall the countless slurs George Jefferson would aim at his white counterparts as a means of expressing his

distrust or dislike of them. Parallel to this was the consistent dejection, anger, and disappointment portrayed through James Evans, a barely-making-ends-meet father of three living in a public housing facility in Chicago. While these portraits and personalities were scripted, they were reflections of a society marked by inequity, social dysfunction, and frustration. However daunting these portrayals may have been, there was an alternate side to the coin. There was strength, resilience, and determination to provide for and keep the family afloat and together through the harshest of times.

This view would, however, shift as times have progressed into a more socially equitable age. As a result, along came *The Cosby Show.* This was the portrayal of the contemporary black father at his best. Here was a family headed by both parents, whose professions were doctor and lawyer. Above all, viewers saw a father who was not angry or frustrated; he was affluent and funny. This portrayal remains utopian and was, neither then nor now, as socially accepted as the aforementioned perspectives. Undeniably, the postemancipation African American father had to be of a stronger and stricter variety, but this was of necessity by his circumstances and not the result of natural inclination. To imply, as some have done, that such experiences as the Cosbys' did not exist throughout the course of African American history would be false.

Present Concerns

As society has progressed into a more technologically advanced social, economic, and academic age, the multiple uncertainties and social ills surrounding the family unit have come into focus. Likewise, attempts to fix what does not work in today's families have become more common. The black family and its supposed dysfunctions have been a prominent area of inquiry and concern, probably because of the continued higher numbers of such families in poverty. The absence of the black father in the home has been tagged as cause for a myriad of increasing social problems and irritations, including rises in black male juvenile crime, an increased number of black male juveniles with criminal records, an increase in the number of homes parented by single black mothers, increased numbers of illegitimate children, and the increased dependency of black women–headed households on the state. All of these can be attributed to the black fathers' recent absence from the home. In order to determine the effects of father absence, it is just as vital to denote the causes or sequential happenings that have led to the absence.

Possible Causes of Paternal Delinquency

In *The Woes of the Inner-City African-American Father,* renowned social inequality specialist William J. Wilson argues that there are structural and cultural explanations for the lack of black fathers in inner-city African American homes. He contends that structural economic forces such as deindustrialization and globalization have decreased the number of high-paying manufacturing jobs in the United States, which were replaced

by lower-paying types of employment. Wilson argues that low pay and limited education have made it increasingly difficult for black men to marry. Also, the lack of employment and educational opportunities creates a cultural environment that allows black men to personally assimilate racist sentiments and negative attitudes about themselves. As a result, these African American men view fatherhood and marriage as burdens that they are unwilling to assume. Wilson also suggests that there needs to be a policy that addresses black men's self-esteem and creates readily available, higher-paying employment opportunities (Wilson 2002).

There is also the issue of divorce or separation that influences absence. Approximately two in three divorces are initiated not by the husbands but by the wives, and the children remain living with their mothers in 93 percent of these cases. Encouraged by the government, family courts have consistently taken the stance that if the mother does not want the child to see the father any more, then that must be what is best for the child. Consequently, following divorce or separation, 60 percent of fathers have no further meaningful relationship with their children. These fathers may be walking away and exhibiting negligence, but they are also being pushed out of their children's lives.

Black Family Awareness

There is a question of accountability and responsibility that black men must answer regarding the present state of many African American families, but as a culture and society there has to be a reciprocal solution. In a 2005 Chicago *Sun-Times* poll, of 11 response categories to the question, "What is the most important thing you do for your children?" the largest response (25 percent of the total responses) was to the category "provide." When asked what the idea of a good father meant, the category of nine possible answers that received the most responses was "being able to provide and protect." When asked about the worst aspect of having and raising children, 26 percent of the fathers responded that it was not being able to provide for them. The issue of basic needs provision was chosen most often in all conditions.

With so many African American fathers desiring to support their children but finding it difficult to do so, there has to be a strategy to combat the absence of black fathers and the systemic ills that accompany it. As an advocate for strengthening African American families, famous black actor and comedian Bill Cosby has been involved on many occasions in recent years in discussions about the role of black fathers. He has gone on speaking tours, appeared on television news programs, and penned books on the subject. With Harvard Medical School psychiatry professor Alvin Poussaint, Cosby coauthored the book *Come On, People: On the Path from Victims to Victors,* in which he argues that children in single-parent homes often do not receive the guidance they need or deserve. He suggests that, in a generational, fatherless situation, regardless of whether the father was married to the child's mother, where the male is not present, the child perceives the situation as abandonment. While his harsh criticism of some black families

has not always been well received, he has done a very good job of bringing the issue to the public's attention.

Regarding family and personal relationships, today's African American men are no less sensitive than their forefathers. According to black psychologist Marvin Krohn, black men come to the psychiatrist's office in large numbers, in pain and genuinely seeking help. Krohn goes on to assert that African American fathers have little or nothing to say about the statistics, myths, and other sociological indictments so often made about them. Rather, many of them come in speaking of depression, unease, aggravation, fear, shame, esteem issues, and anger that are most often associated with the close, ongoing relations (child's mother) in their lives. This suggests that black men are as frustrated over their absence in their children's lives as is the rest of society.

Black Father Absenteeism

Formal Statistics

Father absenteeism has been explored by examining the physical and financial presence of the father in the home. Eighty percent of all African American children will spend part of their childhood living apart from their fathers. Seventy percent of African American children are born to unmarried mothers, and 40 percent of all children regardless of race live in homes without fathers. Further studies of African American fathers do indeed suggest that many young African American fathers are relatively uninvolved in the lives of their children.

The National Longitudinal Survey of Labor Market Experience of Youth indicated that, of African American children with mothers ages 20 to 25, about 40 percent primarily lived with both parents, compared to about 90 percent of non–African American children. Of the nonresident fathers, 20 percent had never visited in the past year or had seen their child only once (Lerman and Sorensen 2003). In a sample of 100 fathers and a comparison group of nonfathers, all but one of whom was African American, 18 months after the child's birth, only about 25 percent of the nonresident fathers reported seeing their children daily. A follow-up study of 110 boys mostly born to African American teen mothers in the Baltimore Parenthood Study revealed that over half of these young men have never lived with their father, and most of the nonresident fathers had irregular contact with their children. Only 20 percent of young fathers were living with their children five years after the child's birth, and an additional 20 percent visited regularly.

As it relates to economic support, there is even less information on child support payments by African American fathers. National studies tend to show that about 50 to 75 percent of fathers paid the full amount of court-ordered support in the preceding year. A study based on the Current Population Survey found that minority group fathers of children born to never-married mothers are less likely, overall, to pay child support.

INTERVENTION STRATEGIES

Although black father absenteeism is a significant problem, a number of individuals and community organizations are attempting to limit or even eradicate this phenomenon. Programs like the Academy of Black Fathers in Boston, Massachusetts, and the Father Focus program located in Baltimore, Maryland, are counseling programs that support, encourage, and help fathers develop and maintain close relationships with their children and families. These organizations also provide a society of men who can talk about the experiences of fatherhood.

There are also many government agencies that aid black fathers. One such office is the National Partnership for Community Leadership. Its mission is to improve the management and administration of nonprofit, tax-exempt organizations and strengthen community leadership through family and neighborhood empowerment.

The most recognizable and easily accessible institution with programs aimed at helping fathers is the YMCA (Young Men's Christian Association). A prominent YMCA fatherhood program based in Cleveland, Ohio, recently met with a number of public health officials to discuss programs that would help to prevent absenteeism and fatherlessness in the black community. The conference participants developed a three-level preventative solution to this problem. The first level educated black fathers about the positive side of fatherhood. The next level covered the needs of at-risk men who were consistently underemployed or involved in the criminal justice system. The third level counseled about the importance of relationships.

Henry E. Edward, author of *Black Families in Crisis: The Middle Class,* constructed a forum of solutions to alleviate the current strife in the black family as a societal unit. The initial solutions presented were to reach out to black fathers and to offer them support. Religion and spirituality were highlighted as a source of strength that could be used to aid in morality and accountability for these men. Because of a false sense of masculinity and manliness, black fathers may not want to acknowledge the need for religion. Indeed, rates of church attendance are significantly higher for black women compared to black men. He also discussed at length the effects that mass media have had in the desecration of the black male image and the African American father. Boycotts of radio stations, talk-show hosts, newspapers, and businesses that slander black fathers were proposed to draw attention to the issues. Ultimately, African American men and women were urged to oppose further cuts in jobs and social service programs, to support those programs and policies that allow black fathers to earn the money necessary to provide for their families, and to encourage full-time dads to join a black men's group, such as those structured in the inner cities. These programs help black men support other black men to be better fathers.

In short, previous research has generated a rather negative image of young African American fathers. Additionally, the portrayals of these men in the media highlight their struggles and absence as normative. They may even be shown as sexual predators, seeking personal gratification and likely to abandon the child and the child's mother

when a better opportunity comes along. This image has found its way into the nation's consciousness about race and family, perhaps to the extent of influencing public policy on public assistance and associated issues. One of the most important limitations of much research on fatherhood is that nonresident fathers are highly underrepresented in household surveys, and therefore their perspectives are underrepresented in the literature. Data on young, urban, nonresident African American fathers are particularly thin, and the limited research that has focused on them continues to employ generally small, unrepresentative samples.

African American fathers often are seen as deadbeats due to their lack of economic support in the home, but it would be a bit fairer to say that they are dead broke as well. Seventy percent of the child support debts owed in 2003 were accumulated by men earning $10,000 a year or less. Over 2.5 million nonresident or absentee fathers of poor children are poor themselves, thus making it extremely difficult for them to fulfill the father role as it is currently conceived in U.S. society (Furstenberg and Weiss 2000).

Informal Statistics

Statistics that account for father support of children have largely been derived from formal child support payments; however, the unaccounted-for informal child support, which may constitute a significant percentage of the mother's resources, has been overlooked in many cases. Some researchers have suggested that the nonresident status of the fathers may not forecast their lack of involvement, as was previously believed. Some studies have indeed suggested that the contribution of both financial and nonfinancial support by nonresident African American fathers has exceeded expectations. Many African American men are practically involved in their children's lives and make nonfinancial contributions to their children. Diapers, milk, toys, and baby clothes are only a few of the noncash provisions.

Many have asked why these fathers who provide some basic items do not simply pay child support. There are a number of reasons why they do not. Many of the items a father brings to his children are physical support of his efforts to provide for them, despite his dismal economic conditions. In return, the bits and pieces have greater significance, visibility, and permanence than cash payments. Such cash payments often vanish almost instantaneously as bills are paid, they are misused by the custodial parent, or, in the case of children receiving public assistance, they are used to reimburse the government for necessities it has provided the children.

It is quite likely that black fathers have been assaulted, and their contributions in a number of categories have been unjustifiably denigrated. Research supports many assertions about the positive contributions of African American fathers. African American fathers in two-parent families spend more time with their children than do Hispanic or white fathers. African American fathers and black fathers in the Caribbean are more likely than white fathers to treat boys and girls similarly when they are babies. They also interact just as frequently with their young daughters as they do with their young sons.

On the other hand, in the United States, black families have higher divorce, separation, and never-living-together rates than white families. However, a top predictor that a black couple will stay together is the black man's enjoyment of, and interest in, being a father and sharing in the day-to-day care of his children (Fatherhood Institute 2005).

Rates of nonresident fathers being involved with very young children are surprisingly high among nonresident African American fathers, but father involvement drops off considerably as the children age. Correspondingly, as the time since the father has lived with his child increases, father involvement decreases. Most nonresident African American fathers speak movingly of the meaning of their children in their lives, even if they rarely see them. African American fathers sometimes say that when they cannot contribute financially, they feel too guilty to have ongoing contact with their children. Many times a pregnancy and the ensuing birth provide African American fathers who have been participating in frequent illegal activity a strong motive to leave their hazardous street lives. Because of this, African American fathers often claim that their children have literally saved them (Fatherhood Institute 2005).

However, low-income African American fathers are more likely than both black and white higher-income fathers to place an equal value on the breadwinning, provider role and on the relational functions of fatherhood. Both structural and behavioral factors, such as unemployment, drug use, criminal activity, and conflicts with their child's mother hinder black fathers from fulfilling the duties they say are necessary to be an adequate or good father.

Conclusion

There is a question of accountability and responsibility that black men have to answer regarding the present state of many African American families. At the same time, social and cultural supports could be enacted that would assist black men in more fully meeting their obligations. Given the constraints of living in poverty, many African American fathers are torn between their desires to effectively parent and their need to ensure their own survival. The general public, influenced by the stereotypical portrayals of black men in the media, may not recognize the roles that black men do play in the lives of their children.

Having an involved father has noticeable benefits to children. Fathers are important because they help to teach children values and lessons in solving the problems they may face, and they do so in a way that differs from what mothers contribute. Fathers also serve as role models in their children's lives that affect how well they relate to peers and adults outside the home and in society. When speaking of the benefits of being an involved father, focus is placed on the benefits that children receive from such a relationship. Being an involved father means being actively involved in nearly every aspect of a child's life, from direct contact, play, and accountability for child care to making oneself available to the child. Black men's social situations influence how well they may or may not meet these demands.

While the common stance regarding African American fathers today is that their absence results in significant financial and social harm to their offspring, it may not be universally true. Researchers studying the issue of paternal involvement for a substantial amount of time have found concise evidence supporting the importance of paternal participation. Recently, some researchers have found that African American fathers can contribute to the health and well-being of their children, even if they do not live in the same household. The results of investigations of the influences of nonresident father involvement on children indicate that positive father involvement relates to better child outcome.

Researchers note that it is the quality rather than quantity of time that youth spend with their fathers that is important for their well-being. Research has also shown that children whose fathers are involved in rearing them score higher on cognitive tests (they appear smarter) than those with relatively uninvolved fathers. These improved cognitive abilities are associated with higher educational achievement. In fact, fathers who are involved in their children's schools and academic achievement, regardless of their own educational level, increase the chances that their child will graduate from high school and perhaps go to a vocational school or a college. A father's involvement in his children's school activities protects at-risk children from failing or dropping out.

Research shows that fathers who are more involved with their children tend to raise children who experience more success in their careers. Career success can lead to greater income and greater financial stability. Involved fathering is related to lower rates of teen violence, delinquency, and other problems with the legal system. Furthermore, paternal involvement is associated with positive child characteristics such as understanding, self-esteem, self-control, psychological well-being, social competence, and life skills. Children who grow up in homes with involved fathers are more likely to take an active and positive role in raising their own children. For example, fathers who remember a safe, loving relationship with both parents were more involved in the lives of their children and were more supportive of their wives.

Finally, being an involved father brings benefits to the dads themselves. When fathers build strong relationships with their children and others in the family, they receive support and caring in return. Research has shown that healthy family relationships provide the strongest and most important support network a person can have, whether that person is a child or an adult. Being involved in their family members' lives helps fathers to enjoy a secure attachment relationship with their children, cope well with stressful situations and everyday problems, feel as if they can depend on others, feel more comfortable in their occupations, and feel that they can do their parenting job better.

The benefits listed above are only a small portion of what accrues for fathers and children in a healthy relationship. There may be others that the research has yet to uncover. Nevertheless, all of these benefits for both fathers and children in the African American community will require hard work, patience, support, and diligence. It seems a more prudent and wise use of resources to determine how African American men can

be assisted to be present in their children's lives rather than to denigrate them for their absence.

See also **Deadbeat Parents; African American Criminal Injustice (vol. 2); Social Justice (vol. 2)**

Further Reading

Clayton, Obie, et al., eds., *Black Fathers in Contemporary American Society: Strengths, Weaknesses, and Strategies for Change.* New York: Russell Sage Foundation, 2005.

Coles, Roberta L., and Charles Green, eds., *The Myth of the Missing Black Father.* New York: Columbia University Press, 2010.

Connor, Michael E., and Joseph L. White, eds., *Black Fathers: An Invisible Presence in America.* Mahwah, NJ: Lawrence Erlbaum, 2006.

Cosby, Bill, and Alvin F. Poussaint Jr., *Come On, People: On the Path from Victims to Victors*. New York: Thomas Nelson, 2007.

Fatherhood Institute, "Finding Black Fathers in Families" (2005). http://www.fatherhoodinstitute.org/index.php?id=7&cID=82

Furstenberg, Frank E., and Christopher C. Weiss, "Intergenerational Transmission of Fathering Roles in At Risk Families." *Marriage and Family Review* 29 (2000): 181–202.

Hamer, Jennifer, *What It Means to Be Daddy: Fatherhood for Black Men Living Away from Their Children.* New York: Columbia University Press, 2001.

hooks, bell, *Ain't I a Woman: Black Women and Feminism*. Boston: South End Press, 1981.

Lerman, Robert, and Elaine Sorensen, "Child Support: Interactions between Private and Public Transfers." In *Means-Tested Transfer Programs in the U.S.,* ed. Robert Moffitt. Chicago: University of Chicago Press, 2003.

Nelson, T. J., Clampet-Lundquist, S., and K. Edin, "Sustaining Fragile Fatherhood: Father Involvement among Low-income, Noncustodial African American Fathers in Philadelphia." In *A Handbook of Father Involvement,* ed. Catherine S. Tamis-LeMonda and Natasha Cabrera. Mahwah, NJ: Lawrence Erlbaum, 2002.

Smith, Carolyn A., Marvin D. Krohn, R. Chu, and O. Best, "African American Fathers: Myths and Realities about Their Involvement with Their Firstborn Children." *Journal of Family Issues* 26, no. 7 (2005): 975–1001.

Wilson, William J., *The Woes of the Inner-City African-American Father.* New York: Cambridge University Press, 2002.

ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)

Nicole D. Garrett

Parents often agonize over a child's behavior, wondering if their child is just unruly or if there might be a medical cause to problems experienced in school and other rigid settings. Increasingly, parents are finding a diagnosis—attention deficit hyperactivity

disorder (ADHD)—to account for some of the behavior issues that make parenting a particularly challenging activity. According to the medical community, ADHD is a neurological disorder primarily characterized by inattentiveness, hyperactivity, and impulsivity. ADHD is generally detected in childhood, but increasing numbers of individuals are being diagnosed in adulthood. The vast majority of identified ADHD sufferers are male. A heated debate centers on the nature of the disorder, including whether a medical label is appropriate and how it should be treated.

ADHD has received increased attention in the professional and popular literature in recent years. Most sources agree that ADHD diagnoses are on the rise in the United States. Comparing two similar data sources illustrates this increase. According to a 1987 study, the weighted national estimate of children receiving treatment for ADHD was approximately a half million. A follow-up to this research in 1997 reported a weighted national estimate of children receiving ADHD treatment of more than 2 million. These figures can be loosely compared to the most recent data available from the Centers for Disease Control and Prevention on the number of children in the United States ever diagnosed with ADHD. According to this source, this distinction applied to 4.5 million youth in 2006 (the most recent estimate). From this illustration emerges a general idea of the rate of change surrounding ADHD diagnoses in the United States.

Three Contested Perspectives

A crucial element of the ADHD debate involves its definition. Many physicians and psychologists believe that ADHD is a medical issue with neurological implications and genetic causes. Others—those who favor a more holistic approach to life or who may not have parented—feel that ADHD is a creation of overzealous practitioners and pharmaceutical companies. Still others see the phenomenon as social in origin, arising from changing values and ideals regarding childhood. Thus, three main perspectives exist in the ADHD controversy. The first is the medical perspective that views ADHD as a physiological disease. The second perspective describes ADHD as subject to the medicalization process that transforms many behavioral issues into medical problems. The third perspective portrays ADHD as a social issue arising from changing interpretations of behavior rather than children's physical disabilities.

ADHD as a Disease

The underlying assumption of a medical model of a disorder is that some recognized standard of behavior, one that is displayed by the majority of the populace, is absent in an individual. The absence of the expected behavior is attributed to an illness or disease, which, once properly diagnosed, can be treated to help bring about more desired behavior.

Many psychologists, psychiatrists, physicians, and other clinicians, as well as parents, teachers, and members of the general public, believe this model is appropriate for

ADHD. The idea that inattentiveness and hyperactivity in children indicate a disorder originated near the turn of the 20th century. The condition, then termed *hyperkinetic reaction of childhood,* was officially recognized by the American Psychiatric Association in the second edition of its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-II) in 1968. For the DSM-III, the label was revised to *attention deficit disorder* (ADD). The terminology changed again for the revision of the third addition, the DSM-III-R, when the disorder was given the more inclusive title of *attention deficit hyperactivity disorder* or ADHD.

The current DSM-IV lists inattentiveness, hyperactivity, and impulsivity as the three primary characteristics of ADHD. The manual also indicates that an ADHD diagnosis is not appropriate unless symptoms have been present for at least six months, these symptoms occur to a degree that is developmentally deviant, and these symptoms were developed by the time the individual was seven years old.

The medical community has been searching for a verifiable physiological cause of ADHD for some time. Although no exact biological origin has been determined, researchers and clinicians have focused their efforts on the brain for answers to the root of the disorder. Among the proposed possibilities are chemical imbalances and brain deficiencies that may arise from low birth weight or premature birth. Some notable investigation has also been done on the frontal lobe, the area of the brain responsible for behavioral and emotional regulation. As this area matures, individuals gain the ability to plan before acting and, when necessary, to ignore the desire to act. Scientists have observed a difference in the size and shape of the frontal lobe in ADHD individuals compared to non-ADHD individuals. These variations may indicate a diminished capacity for self-control in people with the disorder. Yet this research has also proven inconclusive, even leading some who accept the medical view of ADHD to admit that no irrefutable biological cause has been discovered to explain it—a point that critics and skeptics are quick to emphasize.

In addition to the argument for neurological markers of ADHD, researchers have also proposed a genetic factor for the disorder. As science learns and understands more about human DNA, the quest to locate particular genetic sources for illnesses has expanded beyond physiological disease to behavioral disorders like ADHD. No one has yet pinpointed an ADHD gene, but many believe it will be discovered eventually. Other proponents of the medical understanding of ADHD see it as more complicated than that, feeling that a single ADHD gene is not likely to be identified. Those who hold this point of view assert that science is beginning to realize that mental disorders originate from complex interactions of genes, chemicals, and other neurological components, meaning that the isolation of a specific ADHD gene is not likely.

Strong arguments asserting that ADHD is a disease come from individuals, or from the relatives of individuals, who have ADHD. According to many of these advocates, ADHD causes much pain for those it touches, especially when not diagnosed and medical

treatment can bring relief. ADHD literature contains a large number of personal stories by individuals dealing with the disorder. Many of these report that they were considered stupid, lazy, and unmotivated as children. They also describe deep feelings of guilt and isolation because they were unable to meet academic and social expectations. For these individuals who found relief and understanding after being diagnosed with ADHD, the validity of the medical model is unquestionable. The stories of ADHD sufferers can often be found alongside reports from family members who describe distress over not knowing how to relate to or help their loved one with ADHD. These personal accounts available in the literature give human voices to an issue that is dismissed by some critics as a myth and others as invention.

The Medicalization of ADHD

Another perspective on ADHD is that it, like a number of other social issues, has been subjected to the process of medicalization. Prominent medicalization researchers and others cite as key elements of the medicalizing of ADHD the changing views of children in the United States, the unprecedented power of the medical profession, and the clout of pharmaceutical companies offering so-called miracle drugs to fix behavioral problems.

Prior to the Industrial Revolution, children were seen as miniature adults rather than members of a special life stage prior to adulthood. Children were considered responsible and were expected to become productive members of society at early ages, for most this meant joining the labor force or helping on the family farm. At this time, the realms of child care and management rested squarely within the family.

But with urbanization came a decreased need for child labor and a greater emphasis on education. Eventually, society came to see children's proper place as in the classroom, and compulsory education arose. As youth were being thrust into schools, their parents were coming to view them as innocent creatures with little social power, dependent on the protection and care of adults. Over time, as people began to place more stock in the word of professionals and specialists over the teachings of folkways and tradition, parents more often sought out these specialized groups for ideas about how to properly rear children. This view of youth as innocent and dependent coupled with a loss of authority in the family is described by some as a prime contributor to the medicalization of untoward child behavior. Furthermore, because children are not considered mature enough to be culpable, their unacceptable actions cannot be labeled crimes, leaving only illness labels to explain their deviant conduct.

Before medicine gained respect as a scientific field, bad children were thought to be under the devil's influence, morally lacking, or subject to poor parenting. Religion and the family had the main responsibility for shaping society's views on appropriate and inappropriate behavior. However, once physicians began to make medical breakthroughs, including the advent of vaccinations, the profession began to build expert power. Over

the last century or so, the medical field has acquired great authority and now has almost absolute control over how U.S. society defines disease, illness, and treatment. Thus, when physicians approach behavioral difficulties, such as those displayed with ADHD, as medical issues requiring medical treatment, most people accept this definition without question.

The makers of pharmaceuticals have also been gaining influence in society. Some now see these companies as a driving force behind the medicalization of a host of issues, including ADHD. Many people believe that if a drug exists that treats symptoms, then it proves disease is present. Such is often the case with ADHD. Psychostimulants, such as Ritalin and Adderall, have been shown to be very effective at helping children calm down and pay attention. Because of this success, despite the positive effects found for alternative treatments such as parent training programs, medications are considered the most useful method of curbing ADHD difficulties. Critics contend, however, that the efficacy of psychostimulants for adjusting the behavior of children diagnosed with ADHD is not valid evidence of a biological deficit, because these drugs produce similar results in children who do not have ADHD as well.

Following the view of some proponents, one primary reason aspects of human behavior are being increasingly tied to genetic explanations is because this is financially beneficial for drug manufacturers who are supposedly able to offer the only solutions to medical defects. Supporting this argument is the fact that, in the 1960s, pharmaceutical companies began to aggressively market psychostimulants for children with ADHD by using print advertisements in medical journals, direct mailing, and skilled representatives who promoted their products to doctors. These tactics proved effective, and more doctors and clinicians looked to psychostimulant medications as solutions for problematic behavior in children. Today, millions of people in the United States take these medications, causing some to fear that drugging children has become a new form of social control or that doctors are handing out prescriptions haphazardly to anyone claiming to have trouble concentrating or sitting still.

ADHD as Social Construction

In addition to the perspectives of ADHD as disease and the medicalization of ADHD is the view of ADHD as social construction. According to social psychology, humans are driven by the desire to make sense of the world around them. Individuals observe one another's behavior, interact in situations, and perform acts, all to which they constantly try to attach definitions to help them understand the world and their place in it. This process is social and varies based on situational, historical, and other factors, which means that society's understandings can change over time. Several authors believe this has occurred with the interpretation of youthful conduct.

Ideas about desirable and undesirable child behavior vary within and between cultures. Thus, no universal definitions of good and bad conduct exist. Some claim that, in

the United States, children's actions have not changed so much as society's interpretations of them. U.S. society used to be more understanding of variations in children's behavior and allowed them outlets for excess energy, such as time for recess and physical education built into the school day. Recently, however, following the No Child Left Behind Act of 2001 and the thrust to improve standardized test scores, most schools have done away with these sanctioned play times.

In a scholastic atmosphere now calling for more productivity from even the youngest students, inattentiveness and hyperactivity are considered more of a problem than they were formerly. Some critics of this social development, such as Armstrong (2002), are troubled by the demands that they believe society places on children to be more like machines than human beings. Following this and some others' views, society, with pressure from experts, no longer sees disruptive students as exuberant or eccentric but rather as sick and in need of medication to put them back on the path to success, almost as if these children are broken and in need of repair.

The emergence of the field of developmental psychology also may have engendered a change in the social definitions of childhood conduct (Timimi 2005). Developmental psychology offers standardized ideals for child development. Milestones are prescribed based on age, and deviation from these standards is considered cause for alarm and is often approached from a medical standpoint. This discipline promotes developmental markers not only for areas such as physical growth, language use, and motor skills but for maturity, ability to attend to stimuli, and social interaction.

Some argue that, due to the prescriptions of developmental psychology, parents, teachers, and physicians are now more likely to view behaviors that are not deemed age appropriate or acceptable as highly problematic. What may have once been considered simply a difficult personality is often pathologized today. Authors who hold this view seem to apply a version of the Thomas Theorem to the issue, the basic idea of which is that anything perceived as real is real in its consequences. Following this, it appears to some that people, accurately or not, view ADHD as a real disorder and thus look for symptoms confirming it, causing real consequences for children who are given the resulting pathological label.

A final illustration of society's changing definitions surrounding this issue deals with the locus of blame for children's misbehavior. Some researchers today support the view that poor home environments can impact children such that they display symptoms of ADHD. According to these authors, chaos, disharmony, hostility, and dysfunction at home can cause children to have trouble focusing in class or to act out irrationally. Supporters of this view, however, are in the minority. Furthermore, prior to the medical diagnosis, behavioral difficulties characterizing ADHD were frequently thought to result from poor parenting, especially by mothers. Today, however, the prevailing professional opinion is that mothering behaviors are a consequence, not a cause, of children's behaviors. Thus, less desirable actions and reactions on the part of parents are now seen

as a consequence of stress that builds up from dealing with a troubled child rather than a poorly behaved child being seen as a symptom of poor parenting. The emphasis on biology over parenting has taken responsibility away from parents and placed it on intangible sources deep within the child's brain.

Children with ADHD and Their Parents

While the debate rages on about the proper conceptualization of ADHD behaviors, parents and children are caught in the middle. Much research has found that actions consistent with ADHD in a child have negative implications for that child's relationship with his or her parents. In general, households with children who have ADHD are characterized by higher parental stress and distress and more parent-child conflict than households without children who have ADHD. Studies of parents' self-reports find that mothers and fathers of these children have trouble relating to their offspring, often lack a sense of closeness with the child, and view themselves as less skilled and competent as parents. Commonly, these parents experience feelings of hopelessness and desperation to find help. In efforts to address the challenges they face, some parents display negative reactions to their children, including being excessively controlling, viewing the youths less positively, and resorting to more authoritarian discipline styles.

In addition to these joint concerns, studies have found issues unique to mothers and to fathers regarding their children with ADHD. For example, research has found a correlation between depression in mothers and parenting children with ADHD. Following a social tradition of disproportionate responsibility for rearing children, many mothers internalize the notion that they are to blame when their sons or daughters misbehave. This history of mother blaming has been somewhat relieved by the rise of the medical model for ADHD, which takes the liability away from mothers and places it on the child's internal defects that are outside their control. Despite this, a number of mothers today are still deeply troubled when their children behave negatively, both out of concern for the quality of life of the child and for others' potentially hurtful perceptions about their parenting.

Many fathers of children with ADHD experience their role differently from mothers. For example, one study found that fathers were much less willing than mothers to accept the medical view of their children's difficulties. Additionally, this research noted that many fathers were not active in the diagnostic and treatment process of their children's disorder, but they did not stand in the way of it either. Often they were sidelined during this progression, some by choice and others in an effort to avoid conflict in the marital relationship.

One notable finding by researchers, such as psychiatrist Ilina Singh, is that a number of fathers feel guilt in connection to their sons' ADHD. The medical model for this behavioral disorder proposes a genetic linkage that passes ADHD from father to son. Due to this, some fathers blame themselves for causing their sons' problems. One consequence

of acknowledging their possible responsibility is that men think back to their own childhoods, in which they behaved similarly to their sons, and question whether they should have been given the same diagnosis.

Finally, discord can arise between a husband and wife as they struggle to deal with their child with ADHD for a number of reasons. One example is a disagreement over the true nature of their offspring's problems. Also, trouble can emerge simply from the general stress of the environment. Partners who are feeling upset about issues with their child may take out their emotions on one another. Another source of conflict might be a husband's opinion that his wife is at least somewhat responsible for their child's unruly behavior because she is too indulgent, a sentiment some fathers report they have.

A DEBATE WITHIN THE DEBATE

Millions of children in the United States are currently taking Ritalin, Adderall, or some other psychostimulant used to treat attention deficit hyperactivity disorder (ADHD). Although other treatment methods exist, medication is by far the treatment most often used. This rise in psychostimulant prescriptions, which has corresponded with the rapid increase in ADHD diagnoses, has sparked an intense debate within the overall ADHD controversy.

Although the conceptualization of a disorder called ADHD was decades in the future, a scientist in 1937 was the first to test the results of stimulants on children with behavioral problems. He was surprised to discover the seemingly illogical effect these drugs had of subduing unruly children. The most-prescribed ADHD drug, Ritalin, was created in the 1950s and was approved by the federal Food and Drug Administration for use in children in 1961. Since then, innumerable studies have been conducted to test the effects of psychostimulants on ADHD children. The majority of this research has reported these drugs as successful at calming children, helping them concentrate, and improving their short-term memory. Supporters of psychostimulant use see this as evidence of the medications' appropriateness and usefulness. They also report the extended effects of helping children learn and socialize better with peers, both of which improve self-esteem. Additionally, they claim that medications improve outcomes of other therapies when they are used in combination.

Critics of psychostimulant use point to the negative effects these drugs can have, some of which are rare. These include lethargy, compulsiveness, slight growth inhibition, appetite loss, dry mouth, seizures, and tics. They also note that the drugs' benefits are short-term. Once patients stop taking them, their ADHD difficulties return. This means that children, once placed on medication, have little hope of ever getting off of it and functioning effectively. Skeptics also point out that psychostimulants have been found to have similar calming and attention-focusing effects on people not considered to have ADHD. They believe this disproves the belief that a disease is present if medications can successfully treat it.

Critics of the medical model and of the medicalization of ADHD sometimes condemn parents for their willingness to accept such a label for their children. Some of these critics believe that parents today take the easy way out, choosing to take their children to a doctor for medication rather than altering their parenting styles to address difficult behavior. Contrary to this perception, however, many parents report experiencing great worry over the decision to seek treatment for their children. Many would likely report that these actions were a last resort. A great number of ADHD diagnoses are initiated at school. Parents are often called to school repeatedly to address a child's unruly behavior, and eventually a teacher or administrator suggests an ADHD evaluation. If a parent is reluctant, this suggestion may continue to be made until he or she gives in. Regardless of whether they feel the ADHD label is appropriate, if a practitioner tells a parent that a son or daughter has ADHD, that parent has additional pressure to take steps to address it. Many parents, who may see themselves as grossly unqualified to determine the nature of their children's problems, eventually defer to the opinion of the experts (teachers, doctors, psychologists) and accept the ADHD diagnosis and treatment. Despite critics' claims, these parents would surely report that this decision is anything but easy.

Conclusion

ADHD is an issue touching more and more lives in the United States each day. Extensive research has been done on this topic, ranging from medical investigation to social interpretation, yet it remains an area ripe for exploration and debate. Science continues to seek definitive proof that a deficiency or imbalance in the brain, transmittable by DNA, causes recognizable unwanted behaviors that can be labeled and treated as a disease. At the same time, those opposed to this view continue to study and question the social factors surrounding this issue and disprove any biological basis. Neither side has had absolute success, so the controversy continues.

Regardless of where one stands in the debate, it is hard to deny that an increasing number of parents and children are being faced with the ADHD label. Those parents who hear competing information from various sources in the controversy often feel torn over the right thing to do and experience negative feelings, regardless of their decision. Perhaps one day an irrefutable medical discovery will be made to mark ADHD as a disease. Perhaps social opinion on children's behavior will shift, and more rambunctious or unruly behavior will not be considered as problematic as it is today. Either of these events could result in an end to the debate surrounding ADHD. However, at this point, there is no indication that either type of solution will occur any time soon. Thus, ADHD diagnoses are sure to continue, with proponents' blessings and critics' curses.

See also **Inclusive Schooling; Mental Health**

Further Reading

Armstrong, Thomas, "ADD: Does It Really Exist?" In *Taking Sides: Clashing Views on Controversial Issues in Abnormal Psychology,* 3d ed., ed. Richard P. Halgin. Dubuque, IA: McGraw-Hill/Duskin, 2002.

Barkley, Russell A., *Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment,* 3d ed. New York: Guilford Press, 2006.

Conrad, Peter, and Joseph W. Schneider, *Deviance and Medicalization: From Badness to Sickness.* Philadelphia: Temple University Press, 1992.

Hallowell, Edward M., "What I've Learned from ADD." In *Taking Sides: Clashing Views on Controversial Issues in Abnormal Psychology,* 3d ed., ed. Richard P. Halgin. Dubuque, IA: McGraw-Hill/Duskin, 2002.

McBurnett, Keith, and Linda Pfifner, eds., *Attention Deficit Hyperactivity Disorder: Concepts, Controversies, New Directions.* New York: Informa Healthcare, 2008.

Singh, Ilina, "Boys Will Be Boys: Fathers' Perspectives on ADHD Symptoms, Diagnosis, and Drug Treatment," *Harvard Review of Psychiatry* 11 (2003): 308–316.

Timimi, Sami, *Naughty Boys: Anti-Social Behavior, ADHD and the Role of Culture.* New York: Palgrave Macmillan, 2005.

Wegandt, Lisa L., *An ADHD Primer,* 2d ed. Mahwah, NJ: Lawrence Erlbaum, 2007.

B

BILINGUAL EDUCATION

Lee Gunderson

Miriam Amanda Ferguson, known as Ma Ferguson, the first woman governor of Texas some 75 years ago, became involved in a debate about which languages should be used in teaching Texas schoolchildren. "If English was good enough for Jesus Christ, it's good enough for me," she said. This statement characterizes the seemingly irrational view many Americans have of English. Just like motherhood, justice, freedom, democracy, and apple pie, it seems that English has become a central symbol of American culture.

Many view English, especially reading and writing, as the prerequisite that allows both native-born and immigrant students' participation in schools, socialization into society, ability to learn, and academic and professional success. Many believe that the learning of English is a basic requirement of citizenship for immigrants; that it is their democratic responsibility. Many secondary teachers argue that English should be a prerequisite for entrance into their classes and are convinced that English should be a prerequisite for immigration. Issues relating to the use of languages other than English in the United States have become both contentious and politically charged. English has become so central that some states have passed English-only laws, and the group called U.S. English has organized to lobby for an amendment to the U.S. Constitution that would establish English as the official language. In 1998, 63 percent of the voters in California supported an anti-bilingual proposition called Proposition 227. Arizona has also passed a similar law. In the midterm election of 2006, voters of Arizona voted 849,772 (66 percent) to 295,632 (26 percent) in favor of Proposition 103 to make English

the official language and to make businesses enforce the measure. A year later, Idaho and Kansas passed similar laws, and Oklahoma seemed set to pass an English-only law in November 2010. (See http://englishfirst.org/ for an interesting view of English.)

The passage of the law in California in 1998 neither made the advocates of English-only happy nor did it eliminate bilingual education. The bilingual lobby is now simply defying the state law. A front-page story in the *San Francisco Chronicle* headlined "Educators Working around Prop. 227" reports that, "in many Bay Area school districts, bilingual education lives." When kids got back to school, "they found bilingual education waiting for them." The bilingual education director in Contra Costa County defiantly said, "If a child is very limited in English proficiency, we will offer [native] language instruction. It's essentially the same as what we offered last year" (Amselle and Moore 1998, 2).

The mere mention of bilingual instruction disturbs many Americans. Those who speak English as a second language are seen as the culprits of lower reading scores in many jurisdictions. Unfortunately, students who speak languages other than English at home are less likely to succeed in schools. Spanish-speaking students are less likely to complete high school than English speakers and are also less likely to go on to university. Immigrants enrolled in secondary school English-only programs do not do well academically, and they drop out at alarming rates. Such students could be helped in their studies by some kind of support in their first languages. The political climate is such, however, that the use of languages other than English or bilingual instructional programs causes general societal and governmental angst. History, however, reveals that the United States is a country of diversity that has welcomed people who speak many different languages. How then, has it transpired that English-only is considered by so many as the only way; the American way?

Not All of the Founding Fathers Were English Speakers

The earliest European colonists to America were English speakers. However, by 1776, there were thousands of German settlers in what became the states of Pennsylvania, Maryland, Virginia, New York, and Ohio. The Continental Congress produced German versions of many of its proclamations. Heinz Kloss, in *The American Bilingual Tradition* (1998), notes that "the most important German publication of the Continental Congress was the German edition of the Articles of Confederation, which had the title: 'Artikel des Bundes under der immerwährenden Eintracht zwischen den Staaten'" (28). And the recognition of the German language was also a recognition of "a strong and enthusiastic participation of most of the German minority in the armed rebellion" (28).

According to Kloss, the Third Congress was asked in 1794 by individuals from Virginia to print copies of federal laws in German. This issue did not come up for a vote until 1795, when it lost, 41 to 42. Kloss notes these events gave rise to the "Muhlenberg legend." The legend is that the Congress wanted to make German rather than English the official language of Congress, and Muhlenberg, the speaker of the House, "thwarted" the action

(30). Kloss concludes that this is not true. It is true, however, that the first Constitutional Convention in the commonwealth of Pennsylvania on July 26, 1776, published records in German. Therefore, the use of German in state business is as old as the state itself.

Bilingual Instruction: An American Tradition

The state of Ohio first authorized German-English instruction in 1839. Laws authorized French and English programs in Louisiana in 1847 and Spanish and English in the territory of New Mexico in 1850. By the end of the 1800s, nearly a dozen states had established bilingual programs in languages such as Norwegian, Italian, Cherokee, Czechoslovakian, and Polish. Reports revealed that about 600,000 students were receiving some or all of their education in German. During the years before the First World War there were thousands of students enrolled in bilingual classes. Subjects such as mathematics and history were taught in students' first languages. However, it appears that the First World War signaled a hardening of attitudes toward instruction in languages other than English. This negative view appears to have solidified during the Second World War and did not change substantially until the 1960s. It is important to note that immigrant students did not do so well in their studies by being immersed in English-only programs. During the later 1800s and early 1900s, immigrant students did considerably worse than their English-speaking classmates.

Immigrant groups did much worse than the native-born, and some immigrant groups did much worse. The poorest were Italians. According to a 1911 federal immigration commission report, in Boston, Chicago, and New York, 80 percent of native white children in the seventh grade stayed in school another year, but 58 percent of Southern Italian children, 62 percent of Polish children, and 74 percent of Russian Jewish children did so. Of those who made it to the eighth grade, 58 percent of the native whites went on to high school, but only 23 percent of the Southern Italians did so. In New York, 54 percent of native-born eighth-graders made it to ninth grade, but only 34 percent of foreign-born eighth-graders did so (Olneck and Lazerson 1974.

By the mid-1940s, bilingual education had become unpopular in general, and it seems that an anti-German response was likely responsible.

The Exciting 1950s and 1960s

The space age was launched on October 4, 1957, by the Soviet Union. The successful launch of *Sputnik I* was followed by the launch of *Sputnik II* on November 3. A great feeling of failure became part of the American psyche, and a general angst focused Americans' attention on how the Soviet Union had been first. The schools became the target for critics who believed they were not producing the scientists required to keep the United States first in technology and science. In 1963, H. G. Rickover wrote *American Education: A National Failure.* As a result of his efforts, a focus turned to training students to become scientists. However, in the early 1960s, hundreds of thousands of

Spanish-speaking Cubans arriving in Florida resulted in a resurgence of and a refocus on bilingual education in an environment of the drive for civil rights.

Bilingual Education Redux

Systematic bilingual programs in the United States appeared in Dade County in Florida after the influx of thousands of Spanish-speaking Cubans. These bilingual programs were designed to be transitional; that is, the first language was used to support students until their English skills developed and they could learn in English. The majority of students' early education in this model was conducted in their first language, with a daily period reserved for English instruction. Students began to transition to English after they had attained a degree of English proficiency. These programs came to be known as transitional bilingual education, or TBE. It is interesting to note that, in 1968, Governor Ronald Reagan signed into law California Senate Bill 53 that allowed the use of other instructional languages in California public schools. Like other Republicans in the 1960s, he was a proponent of bilingual instruction.

Congress passed the Bilingual Education Act (known as Title VII) in 1968. The act specified that individuals who "come from environments where a language other than English has had a significant impact on their level of English language proficiency; and who, by reason thereof, have sufficient difficulty speaking, reading, writing, or understanding the English language" should be provided bilingual programs. All programs had to provide students "full access to the learning environment, the curriculum, special services and assessment in a meaningful way." Congress did not provide funding for Title VII. However, subsequently it provided support, and 27,000 students were served by Title VII–funded programs. The bill encouraged instruction in a language other than English, primarily Spanish.

Bilingual Programs and the Supreme Court

The U.S. Supreme Court in 1974 concluded that all students had the right to access educational programs in schools and that an individual's first language (L1) was a key to such access. The decision is referred to as *Lau v. Nichols*. In essence, the Court stated that school districts must have measures in place that make instruction comprehensible to English learners. The decision included a number of comments, as well, one of which was the following:

> Basic English skills are at the very core of what public schools teach. Imposition of a requirement that, before a child can effectively participate in the educational program, he must already have acquired those basic skills is to make a mockery of public education.

Title II of the Educational Amendments Act of 1974 mandated that language barriers were to be eliminated by instructional programs. School districts were required to

have bilingual programs. The new teachers were told that any group having 20 or more speakers was to be provided bilingual programs. In another ruling, *Castañeda v. Pickard* (1981), the Supreme Court laid out guidelines for schools with respect to how to meet the needs of English language learners.

By the mid-1980s, however, it seemed that a more pessimistic view of bilingual education had taken hold across the United States. A form of ethnic politics came to dominate instructional decision making, and by the end of the decade there were calls in several states to make laws limiting or banning bilingual education. In 1992, an Arizona state court upheld a parent's claim that her child, an English language learner, was not being provided with sufficient English-language instruction to allow the child to succeed in school. The U.S. Supreme Court, however, taking up the matter years later (in *Horne v. Flores,* 2009), overturned the state court's decision and offered the opinion that the state could determine its own requirements as to English language learning instruction. Two decades of openness toward bilingual education on the part of the Court seemed to be in jeopardy.

Bilingual Education: The Research Base

Researchers became interested in exploring bilingual education beginning in the late 1960s and found evidence that a student's initial reading instruction, for instance, should be in their native language. The belief was that students should learn to read in their L1s first as the "native-language literacy axiom." Some early researchers, particularly those who looked at French-immersion programs in Canada, concluded that students do not necessarily learn to read best in their L1s. This is an argument that continues. Generally, however, the students in these early studies were from families in which both English and French were highly valued and the dominant language was English.

There are two kinds of language proficiencies to be learned: basic interpersonal communicative skill (BICS), the language of ordinary conversation or the manifestation of language proficiency in everyday communicative contexts, and cognitive academic language proficiency (CALP), the language of instruction and academic text. These labels might lead to a misinterpretation of the complexities they seek to describe and imply a deficit model of language. CALP has been likened to "test-wiseness" and is sometimes referred to by an additional acronym: SIN, or "skill in instructional nonsense," a term coined by C. Edelsky in *With Literacy and Justice for All: Rethinking the Social in Language and Education*. The two labels have generally, however, come to represent two categories of proficiency; one associated with face-to-face conversation (BICS) and the other with learning in the context-reduced cognitively demanding oral and written environment of the classroom (CALP). Older students use knowledge of academic material and concepts gained studying L1 to help them in L2, and the acquisition of L2 occurs faster. A number of researchers found that BICS requires about two to three years to develop and that CALP takes about five to seven years.

Cummins and Swain (1986) proposed a common underlying proficiency (CUP) model based on the notion that "literacy-related aspects of a bilingual's proficiency in L1 and L2 are seen as common or interdependent across languages" (82). Literacy experience in either language promotes the underlying interdependent proficiency base. This view suggests that "common cross-lingual proficiencies underlie the obviously different surface manifestations of each language" (82). There is evidence to support CUP; however, there is only modest evidence of transfer of language skills. Common underlying proficiency has also been referred to as the interdependence principle, and some research provides powerful long-term evidence that common underlying proficiency or interdependence does exist.

The 1990s brought a focused research effort to investigate bilingual education but resulted in little definitive evidence that transitional bilingual education is a superior strategy for improving language achievement. Bilingual immersion programs were designed to introduce minority students to English during the early years by integrating second-language instruction with content-area instruction. Immersion students showed an early significant advantage at grade four that disappeared by grade seven. One major difficulty in evaluating bilingual studies is that there are so many variations in programs across studies. A second major difficulty is that many studies are neither well designed nor well evaluated. A third difficulty is that authors often take for granted that what other authors claim is true of their findings is, in fact, true.

Dual-immersion programs were an alternative to TBE programs that gained popularity in the 1990s. Two-way immersion programs are defined as the integration of language-majority and language-minority students in the same classrooms, where: (1) language-minority and language-majority students are integrated for at least half of the day at all grade levels; (2) content and literacy instruction are provided in both languages to all students; and (3) language-minority and language-majority students are balanced. The support for dual-immersion programs, like other bilingual programs, is limited.

The director of the National Institute of Child Health and Human Development established the National Reading Panel in 1997 as a result of a congressional request (National Institute of Child Health and Human Development 2006). The issue of second-language learning was not included in the panel because it was to be addressed by a different research review. An additional National Literacy Panel was established to conduct a literature review on the literacy of language-minority children and youth. In August 2005, the U.S. Department of Education declined to publish the report of the National Literacy Panel, reportedly "because of concerns about its technical adequacy and the degree to which it could help inform policy and practice."

Research has found that secondary students in English-only schools disappeared from academic classes at about a 60 percent rate, and there were significant differences in disappearance rate among ethnolinguistic groups. The relatively high socioeconomic status students who were Mandarin speakers achieved at higher rates and had lower

disappearance rates than did the low socioeconomic status students who were Spanish and Vietnamese speakers. Other research shows that structured English immersion resulted in higher success for English language learners.

There is a constant debate between advocates of English-only and advocates of bilingual programs. The claims that one instructional approach is superior to any other appear to be founded on limited or questionable evidence. At best, inferences about best approaches appear to have limited empirical support. It is impossible to conduct scientific research in a typical school, because there are too many confounding variables to control. Unfortunately, hundreds of thousands of English language learners are failing to learn in school and are dropping out. In the United States, Spanish-speaking students are less likely to complete high school than English speakers and are also less likely to go on to university. The 2005 National Assessment of Adult Literacy report states that, "Perhaps most sobering was that adult literacy dropped or was flat across every level of education, from people with graduate degrees to those who dropped out of high school" (National Institute for Literacy 2006). It also states that those who have higher literacy levels made about $50,000 a year, which is $28,000 more than those who had only minimal literacy skills. It is estimated that the loss of potential wages and taxes in the United States alone over the lifespan of the total number of dropouts in a year is approximately $260 trillion. For countries like the United States that are striving to have a technically trained work force and to remain technically superior, dropouts are a serious difficulty. It is a significant problem that seems to be ignored in favor of arguments about the language of instruction. It remains to be seen what the Obama administration will do in the area of bilingual education, but Secretary of Education Arne Duncan has stated that educating bilingual students is a matter of civil rights and has requested $800 million for English language learner programs in 2011.

Conclusion

The struggle to learn English and to learn academic content is extremely difficult. English language learners deal with the trials and tribulations of growing into adulthood while trying to master English and multiple sets of expectations from their schoolmates, their friends, their teachers, and their parents. Many hundreds of thousands drop out. Proponents and opponents of bilingual education argue their viewpoints vehemently, often referring to research or to political views to support their beliefs. Most bilingual research is focused on younger students, and what happens in secondary and postsecondary situations has had little attention. Much like Ma Ferguson, modern-day critics often make statements that are not always logical. Bob Dole, for instance, argued that "We must stop the practice of multilingual educations as a means of instilling ethnic pride, or as a therapy for low self-esteem, or out of guilt over a culture built on the traditions of the west." The former speaker of the House, Newt Gingrich, concluded: "Bilingualism keeps people actively tied to their old language

and habits and maximizes the cost of transition to becoming American," and "Without English as a common language, there is no such civilization." He also has stated, "When we allow children to stay trapped in bilingual programs where they do not learn English, we are destroying their economic future."

The scandalous situation is that English language learners are not learning the academic skills to allow them to enter into our technological society, and they are dropping out at high rates—some groups more than others. Meanwhile, educators, researchers, politicians, and others seem intent on proving that their views of English-only or bilingual instruction are right rather than on searching for the best programs to assure that all students, including English language learners, learn the vital skills they need to participate in this technologically based society. Is learning English in a bilingual program so evil? It seems time to wake up to history. Diversity has worked well for the United States in the past; one wonders, why not today?

See also **Immigration Reform; Immigrant Workers (vol. 1); Social Justice (vol. 2)**

Further Reading

Amselle, J., and S. Moore, "North of the Border—Mexico Lobbies for Specific U.S. Educational Policies" (includes related article on California's Proposition 227). *National Review* (October 12, 1998): 22–24.

Cummins, Jim, and Merill Swain, *Bilingualism in Education: Aspects of Theory, Research, and Practice.* New York: Longman, 1986.

Edelsky, Carole, *With Literacy and Justice for All: Rethinking the Social in Language and Education*. New York: Falmer Press, 1991.

Gandara, Patricia, and Megan Hopkins, *Forbidden Language: English Learners and Restrictive Language Policies.* New York: Teachers College Press, 2010.

Garcia, Eugene E., *Teaching and Learning in Two Languages: Bilingualism and Schooling in the United States.* New York: Teachers College Press, 2005.

Gunderson, Lee, *English-Only Instruction and Immigrant Students in Secondary Schools: A Critical Examination.* Mahwah, NJ: Lawrence Erlbaum, 2007.

Kloss, Heinz, *The American Bilingual Tradition.* McHenry, IL: Center for Applied Linguistics, 1998 (orig. 1977, Newbury House).

National Center for Education Statistics, *Language Minorities and Their Educational and Labor Market Indicators—Recent Trends.* Washington, DC: U.S. Department of Education, Institute of Education Sciences, 2004.

National Institute for Literacy, "Adults with Basic and Below Basic Literacy Levels: Findings from NAAL and Implications for Practice" (2006). http://www.nifl.gov/webcasts/NAALfindings/webcast081506.html

National Institute of Child Health and Human Development, "Report of the National Reading Panel" (2006). http://www.nichd.nih.gov/publications/nrp/intro.cfm

Olneck, M. R., and M. Lazerson, "The School Achievement of Immigrant Children: 1900–1930." *History of Education Quarterly* (Winter 1974): 453–482.

Salomone, Rosemary C., *True Americans: Language, Identity, and the Education of Immigrant Children.* Cambridge, MA: Harvard University Press, 2010.

Samway, Katharine Davies, and Denise McKeon, *Myths and Realities: Best Practices for English Language Learners,* 2d ed. Portsmouth, NH: Heinemann, 2007.

BIRTH CONTROL

Jonelle Husain

Birth control is the control of fertility, or the prevention of pregnancy, through one of several methods. Another common name for birth control is contraception, because that is precisely what the various birth control methods do; they prevent the viable sperm and egg from uniting to form a fertilized embryo. Though discussing birth control is no longer likely to lead to an arrest, as it did in the days of birth control pioneer Margaret Sanger, public debates remain. Some debates address which methods of birth control are the most effective at attaining one's reproductive goals, while others address whether insurance benefits should include the cost of birth control, the likely long- and short-term effects of their use, how to increase the use of birth control among sexually active young people, and questions over why there are still so many more methods that focus on women's fertility compared with those that focus on men's fertility.

Introduction

Controlling fertility affects the well-being of women, men, children, families, and society by providing methods and strategies to prevent unplanned pregnancies. Planned fertility positively impacts the health of children, maternal longevity, and the empowerment of women. Access to birth control provides women and men with choices regarding family size, timing between pregnancies, and spacing of children. Additionally, controlling fertility reduces the prevalence of chronic illness and maternal death from pregnancy-related conditions.

Globally, approximately 210 million women become pregnant each year. Of these pregnancies, nearly 40 percent are unplanned. In the United States, 49 percent of pregnancies are estimated to be unplanned. Research shows that unintended pregnancies can have devastating impacts on not only women but also children and families. An unintended pregnancy places a woman at risk for depression, physical abuse, and the normal risks associated with pregnancy, including maternal death. Pregnancies that are spaced closely together present risks to children, including low birth weight, increased likelihood of death in the first year, and decreased access to resources necessary for healthy development. Unintended pregnancies can have devastating impacts on the well-being of the family unit. An unplanned pregnancy often pushes families with limited economic resources into a cycle of poverty that further limits their opportunities for success.

Although control of fertility spans approximately 30 years of men's and women's reproductive life, preferences for birth control methods and strategies vary among individuals and across the life course and are influenced by multiple social factors. These factors may include socioeconomic status, religious or moral beliefs, purpose for using birth control (permanent pregnancy prevention, delay of pregnancy, or spacing between births), availability of birth control products, access to medical care, willingness to use birth control consistently, concern over side effects, and variability in the failure rates of different types of birth control products. Although the primary purpose of birth control is to control fertility, increases in the prevalence of sexually transmitted infections (STIs) and the human immunodeficiency virus (HIV), which causes acquired immunodeficiency syndrome (AIDS), have created pressures to develop new pregnancy prevention options that combine contraception and STI prevention. The availability of contraceptive options allows women and men the opportunity to maximize the benefits of birth control while minimizing the risks of contraceptive use according to their needs.

The availability of birth control has raised important questions about reproductive control and the relationships between men and women. Traditionalists argue that pregnancy and child rearing are the natural or biologically determined roles of women, given their capacity to become pregnant and give birth. Opponents of this view argue that reproduction and motherhood are one of many choices available to women. Providing options to women and men that allow them to control their fertility has shifted pregnancy and motherhood from a position of duty to one of choice. This shift is a consequence of changes to the work force, increased opportunities for women, and changes in the economic structure of contemporary families. These changes, along with ongoing developments in fertility control research, provide women and men today with many innovative choices concerning birth control. These choices allow women and men to tailor birth control to their individual needs and life circumstances.

Today, birth control debates focus on the advantages and disadvantages of different birth control methods. The most common debates focus on the merits of temporary versus permanent methods of pregnancy prevention. Other debates examine the benefits of natural versus barrier methods of controlling reproduction. Still other debates examine the advantages and disadvantages of male and female contraception. With the growing pandemic of AIDS in sub-Saharan Africa and Asia and the increasing prevalence of sexually transmitted diseases that threatens world health, contemporary debates about birth control focus on the feasibility and practicality of combining STI prevention and contraception.

Brief History of Contraception

Although women have sought to control their fertility since ancient times, safe and effective contraception was not developed until the 20th century. The large influx of

immigrants in the 1900s and the emergence of feminist groups working for women's rights helped bring to the forefront large-scale birth control movements in the United States and abroad. Ancient forms of birth control included potions, charms, chants, and herbal recipes. Ancient recipes often featured leaves, hawthorn bark, ivy, willow, and poplar, believed to contain sterilizing agents. During the Middle Ages, potions containing lead, arsenic, or strychnine caused death to many women seeking to control their fertility. Additionally, crude barrier methods were used in which the genitals were covered with cedar gum or alum was applied to the uterus. Later, pessary mixtures of elephant dung, lime (mineral), and pomegranate seeds were inserted into a woman's vagina to prevent pregnancy. Other barrier methods believed to prevent pregnancy included sicklewort leaves, wool tampons soaked in wine, and crudely fashioned vaginal sponges.

Later birth control developments were based on more accurate information concerning conception. Condoms were developed in the early 1700s by the physician to King Charles II. By the early 1800s, a contraceptive sponge and a contraceptive syringe were available. By the mid-1800s, a number of more modern barrier methods to control conception were available to women. However, it was illegal to advertise these options, and most were available only through physicians and only in cases that were clinically indicated. Thus, early modern conception was limited to health reasons.

Modern contraceptive devices such as the condom, diaphragm, cervical cap, and intrauterine device (IUD) were developed in the 20th century and represented a marked advance in medical technology. Effectiveness was largely dependent on user compliance. Although these methods represented a significant improvement over more archaic methods, contraceptive safety remained an issue. Other modern methods included the insertion of various substances (some toxic) into the vagina, resulting in inflammation or irritation of the vaginal walls, while other devices often caused discomfort.

The birth control pill, developed in the 1950s by biologist Charles Pincus, represented a major advance in fertility control. Pincus is credited with the discovery of the effects of combining estrogen and progesterone in an oral contraceptive that would prevent pregnancy. The development and mass marketing of the birth control pill provided women with a way to control not only their fertility but also their lives.

Overview of Traditional Contraceptive Methods

Traditional contraception includes both temporary and permanent methods of controlling fertility. Temporary contraception provides temporary or time-limited protection from becoming pregnant. Permanent contraception refers to surgical procedures that result in a lasting or permanent inability to become pregnant. The choice of contraception takes into consideration several biological and social factors, including age, lifestyle (frequency of sexual activity, monogamy or multiple partners), religious or moral beliefs, legal issues, family planning objectives, as well as medical history and concerns. These factors vary among individuals and across the life span.

Traditional Contraceptive Methods

Traditional contraceptive methods provide varying degrees of protection from becoming pregnant and protection from STIs. While some of these methods provide non-contraceptive benefits, they require consistent and appropriate use and are associated with varying degrees of risks. Traditional contraception includes both hormonal and non-hormonal methods of preventing pregnancy and sexually transmitted diseases. These methods provide protection as long as they are used correctly but their effects are temporary and reversible once discontinued. Traditional contraceptive methods include sexual abstinence, coitus interruptus, rhythm method, barrier methods, spermicides, male or female condoms, IUDs, and oral contraceptive pills.

Sexual abstinence refers to the voluntary practice of refraining from all forms of sexual activity that could result in pregnancy or the transmission of sexually transmitted diseases. Abstinence is commonly referred to as the only form of birth control that is 100 percent effective in preventing pregnancy and STIs; however, failed abstinence results in unprotected sex which increases the risks of unintended pregnancy and transmission of STIs.

Coitus interruptus is the oldest method of contraception and requires the man to withdraw his penis from the vagina just prior to ejaculation. Often referred to as a so-called natural method of birth control, coitus interruptus is highly unreliable because a small amount of seminal fluid, containing sperm, is secreted from the penis prior to ejaculation and can result in conception. This method offers no protection from sexually transmitted diseases.

The *rhythm method* of birth control developed in response to research on the timing of ovulation. Research findings indicate that women ovulate approximately 14 days before the onset of their menstrual cycle. The rhythm method assumes that a woman is the most fertile during ovulation. To determine an individual cycle of ovulation, this method requires a woman to count backward 14 days from the first day of her menstrual period. During this time period, a woman should abstain from sexual activity or use another form of birth control (such as condoms) to avoid pregnancy. The rhythm method is another natural form of birth control that is highly risky. Few women ovulate at the exact same time from month to month, making accurate calculations of ovulation difficult. Additionally, sperm can live inside a woman for up to seven days, further complicating the calculations of safe periods for sex. Finally, the rhythm method does not provide protection from sexually transmitted diseases.

Barrier methods of contraception prevent sperm from reaching the fallopian tubes and fertilizing an egg. Barrier methods include both male and female condoms, diaphragms, cervical caps, and vaginal sponges. With the exception of the male condom, these methods are exclusively used by women. Barrier contraception is most often used with a spermicide to increase effectiveness. Spermicides contain nonoxynol-9, a chemical that immobilizes sperm to prevent them from joining and fertilizing an egg. Barrier

methods of contraception and spermicides provide moderate protection from pregnancy and sexually transmitted diseases although failure rates (incidence of pregnancy resulting from use) vary from 20 to 30 percent.

Condoms, a popular and non-prescription form of barrier contraception available to both men and women, provides moderate protection from pregnancy and STIs. The male condom is a latex, polyurethane, or natural skin sheath that covers the erect penis and traps semen before it enters the vagina. The female condom is a soft, loosely fitting polyurethane tube-like sheath that lines the vagina during sex. Female condoms have a closed end with rings at each end. The ring at the closed end is inserted deep into the vagina over the cervix to secure the tube in place. Female condoms protect against pregnancy by trapping sperm in the sheath and preventing entry into the vagina. Used correctly, condoms are between 80 and 85 percent effective in preventing pregnancy and the transmission of STIs. Risks that decrease the effectiveness of condoms include incorrect usage, slippage during sexual activity, and breakage. Natural skin condoms used by some males do not protect against the transmission of HIV and other STIs.

The female diaphragm is a shallow, dome-shaped, flexible rubber disk that fits inside the vagina to cover the cervix. The diaphragm prevents sperm from entering the uterus. Diaphragms are used with spermicide to immobilize or kill sperm and to prevent fertilization of the female egg. Diaphragms may be left inside the vagina for up to 24 hours but a spermicide should be used with each intercourse encounter. To be fully effective, the diaphragm should be left in place for six hours after intercourse before removal. Approximately 80 to 95 percent effective in preventing pregnancy and the transmission of gonorrhea and Chlamydia, the diaphragm does not protect against the transmission of herpes or HIV.

Cervical caps are small, soft rubber, thimble-shaped caps that are fitted inside the woman's cervix. Cervical caps prevent pregnancy by blocking the entrance of the uterus. Approximately 80 to 95 percent effective when used alone, effectiveness is increased when used with spermicides. Unlike the diaphragm, the cervical cap may be left in place for up to 48 hours. Similar to the diaphragm, the cervical cap provides protection against gonorrhea and chlamydia but does not provide protection against herpes or HIV.

Vaginal sponges, removed from the market in 1995 due to concerns about possible contaminants, are round, donut-shaped polyurethane devices containing spermicides and a loop that hangs down in the vagina allowing for easy removal. Sponges prevent pregnancy by blocking the uterus and preventing fertilization of the egg. Vaginal sponges are approximately 70 to 80 percent effective in preventing pregnancy but provide no protection against STIs. Risks include toxic shock syndrome if left inside the vagina for more than 24 hours.

Barrier methods of birth control provide moderate protection from pregnancy and STIs but are not fail-safe. Effectiveness is dependent on consistency and proper use. Advantages include lower cost, availability without a prescription, and ease of use (with the

exception of the diaphragm). Disadvantages include lowered effectiveness as compared to other forms of birth control and little or no protection against certain STIs.

Non-Barrier Contraceptive Methods

Two other traditional contraceptive methods are the IUD and oral contraceptive pills. Both of these methods are characterized by increased effectiveness if used properly. The IUD is a T-shaped device inserted into a woman's vagina by a health professional. Inserted into the wall of the uterus, the IUD prevents pregnancy by changing the motility (movement) of the sperm and egg and by altering the lining of the uterus to prevent egg implantation. The effectiveness of IUDs in preventing pregnancy is approximately 98 percent, however, IUDs do not provide protection from STIs. Oral contraceptive pills are taken daily for 21 days each month. Oral contraceptives prevent pregnancy by preventing ovulation, the monthly release of an egg. This form of contraception does not interfere with the monthly menstrual cycle. Many birth control pills combine progesterone and estrogen, however, newer oral contraceptives contain progesterone only. Taken regularly, oral contraceptives are approximately 98 percent effective in preventing pregnancy but do not provide STI protection.

New Contraceptive Technologies

In spite of the availability of a broad range of contraceptive methods, the effectiveness of traditional contraceptive methods is largely dependent on user consistency and proper use. Even with consistent and proper use, each method is associated with varying degrees of risk. Risks include the likelihood of pregnancy, side effects, and possible STI transmission. New developments in contraceptive technology focus on improvement of side effects and the development of contraceptives that do not require users to adhere to a daily regiment. These new technologies are designed to make use simpler and more suitable to users' lives. Additionally, many of the new technologies seek to combine fertility control with protection from STIs.

The *vaginal contraceptive ring* is inserted into a woman's vagina for a period of three weeks and removed for one week. During the three week period, the ring releases small doses of progestin and estrogen, providing month-long contraception. The release of progestin and estrogen prevents the ovaries from releasing an egg and increases cervical mucus that helps to prevent sperm from entering the uterus. Fully effective after seven days, supplementary contraceptive methods should be used during the first week after insertion. Benefits include a high effectiveness rate, ease of use, shorter and lighter menstrual periods, and protection from ovarian cysts and from ovarian and uterine cancer. Disadvantages include spotting between menstrual periods for the first several months and no protection against STIs.

Hormonal implants provide highly effective, long-term, but reversible, protection from pregnancy. Particularly suitable for users who find it difficult to consistently take daily

contraceptives, hormonal implants deliver progesterone by using a rod system inserted underneath the skin. Closely related to implants are hormonal injections that are administered monthly. Both hormonal implants and injections are highly effective in preventing pregnancy but may cause breakthrough bleeding. Neither provides protection from STIs at this stage of development.

Contraceptive patches deliver a combination of progestin and estrogen through an adhesive patch located on the upper arm, buttocks, lower abdomen or upper torso. Applied weekly for three weeks, followed by one week without, the contraceptive patch is highly effective in preventing pregnancy but does not protect against the transmission of STIs. The use of the patch is associated with withdrawal bleeding during the week that it is not worn. Compliance is reported to be higher than with oral contraceptive pills.

ABORTION

Abortion, defined as the intentional termination of a pregnancy, was legally established in 1973 with the Supreme Court decision in *Roe v. Wade* (*Roe v. Wade* 410 U.S. 113). The decision spawned disparate and strongly held opinions among the American public and the emergence of activist groups taking a variety of positions on abortion. The availability of elective abortion has called into question traditional beliefs about the relations between men and women, has raised vexing issues about the control of women's bodies, and has intensified contentious debates about women's roles and brought about changes in the division of labor, both in the family and in the broader occupational arena. Elective abortion has called into question long-standing beliefs about the moral nature of sexuality. Further, elective abortion has challenged the notion of sexual relations as privileged activities that are symbolic of commitments, responsibilities, and obligations between men and women. Elective abortion also brings to the fore the more personal issue of the meaning of pregnancy.

Historically, the debate over abortion has been one of competing definitions of motherhood. Pro-life activists argue that family, and particularly motherhood, is the cornerstone of society. Pro-choice activists argue that reproductive choice is central to women controlling their lives. More contemporary debates focus on the ethical and moral nature of personhood and the rights of the fetus. In the last 30 years, these debates have become politicized, resulting in the passage of increasingly restrictive laws governing abortion, abortion doctors, and abortion clinics. Currently, South Dakota is the only state that has passed laws making abortions illegal except in cases in which the woman's life is endangered. Other states are considering passage of similarly restrictive legislation.

The consequences of unintended pregnancy are well documented and contribute to the need for the continued development of contraceptive options that will meet the needs and goals of diverse populations whose reproductive needs change throughout their life course. By definition abortion is not a type of contraception but is an option when contraceptive efforts did not prevent pregnancy.

Levonorgestrel intrauterine systems provide long-term birth control without sterilization by delivering small amounts of the progestin levonorgestrel directly to the lining of the uterus to prevent pregnancy. Delivered through a small T-shaped intrauterine plastic device implanted by a health professional, the levonorgestrel system provides protection from pregnancy for up to five years. It does not currently offer protection from STIs.

New contraceptive technologies are designed to provide longer-term protection from pregnancy and to remove compliance obstacles that decrease effectiveness and increase the likelihood of unintended pregnancies. The availability of contraceptive options provides users with choices that assess not only fertility purposes but also variations in sexual activity. However, until new contraceptive technologies that combine pregnancy and STI prevention are readily available, proper use of male and female condoms provides the most effective strategy for prevention of sexually transmitted diseases and HIV.

Permanent Contraception

Permanent contraception refers to sterilization techniques that permanently prevent pregnancy. Frequently referred to as sterilization, permanent contraception prevents males from impregnating females and prevents females from becoming pregnant.

Tubal ligation refers to surgery to tie a woman's fallopian tubes, preventing the movement of eggs from the ovaries to the uterus. The procedure is considered permanent and involves the cauterization of the fallopian tubes. However, some women who later choose to become pregnant have successfully had the procedure reversed. The reversal of tubal ligation procedures are successful in 50 to 80 percent of cases.

Hysterectomy refers to the complete removal of a woman's uterus or the uterus and cervix, depending on the type of procedure performed, and results in permanent sterility. Hysterectomies may be performed through an incision in the abdominal wall, vaginally, or by using laparoscopic incisions on the abdomen.

Vasectomy refers to a surgical procedure for males in which the vas deferens are tied off and cut apart to prevent sperm from moving out of the testes. The procedure results in permanent sterility although the procedure may be reversed under certain conditions.

Permanent contraception is generally recommended only in cases in which there is no desire for children, family size is complete, or in cases where medical concerns necessitate permanent prevention of pregnancy.

Emergency Contraception

Emergency contraception, commonly referred to as postcoital contraception or the so-called morning-after pill, encompasses a number of therapies designed to prevent pregnancy following unprotected sexual intercourse. Emergency contraception is also indicated when a condom slips or breaks, a diaphragm dislodges, two or more oral contraceptives are missed or the monthly regimen of birth control pills are begun two

or more days late, a hormonal injection is two weeks overdue, or a woman has been raped. Emergency contraception prevents pregnancy by preventing the release of an egg from the ovary, by preventing fertilization, or by preventing attachment of an egg to the uterine wall. Most effective when used within 72 hours of unprotected sex, emergency contraception does not affect a fertilized egg already attached to the uterine wall. Emergency contraception does not induce an abortion or disrupt an existing pregnancy; it prevents a pregnancy from occurring following unprotected sexual intercourse.

Conclusion

Ideally, birth control should be a shared responsibility between a woman and her partner. In the U.S., approximately 1.6 million pregnancies each year are unplanned. Unplanned pregnancies position women, men, and families in a precarious situation that has social, economic, personal and health consequences. An unintended pregnancy leaves a woman and her partner facing pregnancy termination, adoption, or raising an unplanned child—often times under less-than-ideal conditions. Contraceptive technologies and research developments in the transmission of sexually transmitted diseases represent increased opportunities for not only controlling fertility but also improving safe sex practices.

See also **Abortion; Teen Pregnancy**

Further Reading

Caron, Simone M., *Who Chooses? American Reproductive History since 1830.* Gainsville, FL: University Press of Florida, 2008.

Connell, Elizabeth B., *The Contraception Sourcebook.* New York: McGraw-Hill, 2002.

Gebbie, Alisa E., and Katharine O'Connell White, *Fast Facts: Contraception.* Albuquerque, NM: Health Press, 2009.

Glasier, Anna, and Alisa Gebbie, eds., *Handbook of Family Planning and Reproductive Healthcare.* New York: Churchill Livingstone/Elsevier, 2008.

Lord, Alexandra M., *Condom Nation: The U.S. Government's Sex Education Campaign from World War I to the Internet.* Baltimore: Johns Hopkins University Press, 2010.

May, Elaine Tyler, *America and the Pill: A History of Promise, Peril, and Liberation.* New York: Basic Books, 2010.

Weschler, Toni, *Taking Charge of Your Fertility.* New York: Harper Collins, 2006.

C

CHARTER SCHOOLS

Gary Miron

Charter schools have become one of the most sweeping school reforms in the United States in recent decades. Charter schools seek to reform public education through a blend of elements found in public schools (universal access and public funding) and elements often associated with private schools (choice, autonomy, and flexibility).

While the definition of charter schools varies somewhat by state, essentially they are nonsectarian public schools of choice that are free from many regulations that apply to traditional public schools. The charter agreement establishing a charter school is a performance contract that details, among other things, the school's mission, program, goals, and means of measuring success. Charters are usually granted for three to five years by an authorizer or sponsor (typically state or local school boards). In some states, public universities or other public entities may also grant charters.

Authorizers hold charter schools accountable for meeting their goals and objectives related to their mission and academic targets. Schools that do not meet their goals and objectives or do not abide by the terms of the contract can have their charter revoked or—when it comes time for renewal—not renewed. Because these are schools of choice and receive funding based on the number of students they enroll, charter schools also are accountable to parents and families who choose to enroll their child in them or choose to leave for another school.

The charter school movement has grown rapidly from two charter schools in Minnesota in 1992 to some 4,000 schools in 41 states and the District of Columbia as of 2010.

Despite this impressive growth, charter schools enroll only a few percent of the public school students in the United States. Some estimates suggest that charter schools enroll close to 1 million students in 2010. Although the impact of charter schools appears minimal at the national level, a few states and several cities have seen the proportion of charter school students rise to capture a quarter of all public school students.

Beyond the United States, charter school reforms can be found in Canada and Puerto Rico. The charter school concept is also very similar to reforms initiated in other countries at approximately the same time. The United Kingdom saw the creation of grant-maintained schools, and in New Zealand and Sweden independent schools were initiated. These various reforms are part of a larger set of national and international trends that have sought to restructure public education. Attempts to restructure schools in the 1980s focused largely on decentralization, site-based management, small-scale choice reforms, and the use of market mechanisms. Proponents argued that restructuring public education would make it more efficient and responsive. One of the main reasons for the rapid and widespread growth of the charter movement in the 1990s was that it provided a vehicle to pursue many or most of the goals related to school restructuring. Another reason for the growth of charter schools is that this reform has been championed by a wide range of supporters, from those who saw these schools as a stepping stone to vouchers to those who saw charter schools as a compromise that would avoid vouchers.

How and Why Charter Schools Work

The simplest and most direct way to explain the theory and ideas behind the charter school concept is to discuss it in terms of three key principles, which roughly correspond to three phases within an overall model of change. The three principles or phases are (1) structural change; (2) "opportunity space" or intermediate goals; and (3) outcomes or final goals. Each of these is discussed below.

Structural Change

At the start of any charter school initiative is the effort to bring about policy changes. These are changes in state law that alter the legal, political, and economic environment in which charter schools operate. They are *structural changes* because they seek to fundamentally alter the conditions under which schools operate. The structural changes provide an opportunity space in which charter schools may experiment. Thus, the charter concept is different from other education reforms in that it does not prescribe specific interventions; rather, it changes the conditions under which schools develop and implement educational interventions.

One of the most important ways in which the charter concept seeks to change schools' external environments is through *choice*. Charter schools are schools of choice in that, with some exceptions, students from any district or locale may attend any charter school. Advocates of school choice argue that choice will lead to sorting by preferences, which

will reduce the amount of time schools spend resolving conflicts among school stakeholders, leaving them more time and energy to devote to developing and implementing educational programs. Advocates of school choice also argue that the very act of choice will dispose students, parents, and teachers to work harder to support the schools they have chosen.

Another theoretical argument for charter schools is that *deregulated and autonomous* schools will develop innovations in curriculum, instruction, and governance that will lead to improvements in outcomes. Traditional public schools could also improve by adopting the innovative practices that charter schools are expected to develop.

At the heart of the charter concept lies a bargain. Charter schools will receive enhanced autonomy over curriculum, instruction, and operations. In exchange, they must agree to be held more accountable for results than other public schools. This new accountability holds charter schools accountable for outcomes—many of them articulated in the charter contract—and then employs deregulation to allow them to choose their own means for arriving at those goals. If charter schools do not live up to their stated goals, they can have their charter revoked by their sponsor, or they may not be able to renew the charter when it expires. Another form of accountability charter schools face is market accountability. Because these are schools of choice, and because money follows the students, charter schools that fail to attract and retain students will, in theory, go out of business.

Opportunity Space and Intermediate Goals

The autonomy granted to charter schools provides them with an opportunity space to create and operate schools in new ways. One important opportunity that charter schools have is to create their own governing boards. Charter school governing boards function much as local district school boards. Unlike district school boards, however, charter school boards are appointed rather than elected. Depending on the state, the board members are selected by the sponsor of the school that granted the charter, or they are selected according to specific bylaws approved by the sponsor. This process helps ensure that the charter school can obtain a governing board that is focused and responsive to the specific needs of the school.

Charter school laws limit—to some extent—the opportunity space in which the schools operate by defining a number of intermediate goals. One such intermediate goal found in many states is the enhancement of *opportunities for parental and community involvement.* Parents who choose schools can be expected to be more engaged than those who do not. Beyond that, proponents of the charter concept contend that such involvement is a valuable resource that will ultimately lead to higher student achievement and other positive outcomes.

Another intermediate goal in most charter school laws is enhanced *professional autonomy and opportunities for professional development for teachers.* Charter schools are

schools of choice for teachers as well as for parents and students. The charter school concept suggests that allowing teachers to choose schools with educational missions and approaches that closely match their own beliefs and interests will create school communities that can spend less time managing value conflicts among school stakeholders and more time implementing effective educational interventions. School choice can also promote a shared professional culture and higher levels of professional autonomy, which the literature suggests lead ultimately to improved levels of student achievement.

While it is true that many important regulations are not waived for charter schools, a few of the key freedoms charter schools are granted deal with teachers; for example, teachers are at-will employees, and most states do not require all charter school teachers to be certified. These provisions allow charter schools more flexibility in recruiting and structuring their teaching force to suit the specific needs of the school.

A third intermediate goal for charter schools is to develop *innovations in curriculum and instruction.* Put another way, proponents argue that charter schools can function as public education's research and development sector. As such, the benefits of charter schools will extend to noncharter students as traditional public schools adopt and emulate these innovations.

Finally, some charter school advocates hope the schools will be laboratories for experiments in the use of *privatized services.* According to these advocates, schools will run more efficiently by contracting out part or all the services they provide. Charter schools, as it turns out, have provided a quick and easy route for privatization, because many states allow private schools to convert to public charter schools, and most states allow charter schools to contract all or part of their services to private education management organizations (EMOs). Some states have no charter schools operated by EMOs, but others—such as Michigan—have more than three-quarters of their schools operated by EMOs. In total, it is estimated that between 20 and 25 percent of all charter schools in the United States are operated by EMOs.

The research base to support many of these theoretical arguments is largely borrowed from market research and remains unproven within the education sector. Nevertheless, proponents continue to argue that increased school choice and privatization will bring a much-needed dose of entrepreneurial spirit and a competitive ethos to public education. While the research base is still somewhat limited, in recent years more and more sound evaluation and research has replaced the rhetorical or theoretical pieces that earlier dominated the literature on charter schools.

Outcomes

Accountability is the price that charter schools pay for their autonomy—specifically, accountability for results rather than accountability for inputs and processes. This, however, begs two additional questions. The first is: accountability for which outputs and outcomes? That is, which outcomes shall serve as the primary indicators of charter

school quality? The second question is: accountability to whom? In other words, who will decide whether charter schools are making sufficient progress toward their goals?

The most commonly noted final outcomes for charter schools are student achievement and customer satisfaction, which are principles drawn from, respectively, the field of education and the field of business. There is some controversy over how policymakers and citizens should balance the values of student achievement and customer satisfaction. While many charter advocates argue that both are important, some libertarians and market conservatives view customer satisfaction as the paramount aim of public programs and agencies. Advocates of this position hold that a policy decision or outcome is good only if its customers think it is good and continue to "vote with their feet" for the service. Proponents of this position also maintain that it is the customers—parents and guardians—and not public officials who are best suited to know what is good for children. Interestingly, while most studies or evaluations of charter schools find that parents and students are generally satisfied with their charter school, the growing body of evidence indicates that, on the whole, charter schools are not performing better on standardized tests than are traditional public schools. Although there are a few successful states, the overall results are mixed at best.

The Future of Charter Schools

Charter schools are here to stay. Few will question that. However, two unanswered questions are of particular interest to the future of charter schools: What will be the likely rate of growth of charter schools? Will charter schools remain a distinct and separate school form, or will they be dragged back into the fold and come to resemble and operate like traditional public schools? Answers to these questions will depend greatly on how charter schools respond to a variety of potential threats that are both external and internal to the movement.

External threats to charter schools include state deficits and re-regulation. School systems are under increasing pressure owing to large budget deficits at local, state, and national levels. In times like these, governments need to focus on core education services and are less likely to start or expand reforms such as charter schools. Although some may argue that charter schools can be more efficient, to date there is insufficient evidence to support these claims. Another potential threat to charter schools is re-regulation. Requirements that charter schools administer the same standardized tests and have the same performance standards as traditional public schools mean that they cannot risk developing and using new curricular materials. New mandates regarding outcomes pressure charter schools to conform and restrict the autonomy they were intended to enjoy.

Charter schools also face a number of internal threats from within the movement. These include the following:

- Growing school and class sizes that are now approaching the sizes found in traditional public schools.

- Unchecked expansion of private EMOs. Claims that EMOs can make charter schools more effective have not been substantiated by research.
- While charter schools were originally intended to be autonomous and locally run, increasingly they are being started by EMOs rather than community groups and steered from distant corporate headquarters.
- Lack of innovation and limited diversity of school options. True school choice requires a diversity of options from which to choose, but charter schools are becoming increasingly similar to traditional public schools.
- Lack of support and standards for authorizers. Many authorizers have no funds allocated for oversight activities. Also, many authorizers are unprepared and sometimes unwilling to be sponsors of charter schools.
- Attrition of teachers and administrators is extremely high in charter schools. A number of studies suggest that annual attrition of teachers ranges from 15 to 30 percent. The loss of teachers leads to greater instability in the schools and represents a loss of investment. Some of this attrition may be functional, as charter school administrators exercise their autonomy in determining which teachers to hire and fire.
- Rapid growth of reforms. As with any sound reform process, it is important to test charter school reforms on a small scale in order to make adjustments before implementing them on a large scale. Some states have implemented and expanded their charter school reforms very rapidly, resulting in a backlash of resistance as shortcomings in oversight and other neglected aspects of the reform become apparent.

Evaluating Schools or Evaluated Schools?

Charter schools—by their very design—were intended to be evaluating schools. The charter school concept is based on providing greater autonomy for charter schools in exchange for greater accountability. This implies that charter schools would be actively involved in evaluating their outcomes and reporting these outcomes to state agencies, the authorizer or sponsor, parents, and the public at large. Another reason that suggests that charter schools would be evaluating schools is that they embody site-based management, so there are no bureaucracies to deal with. Also, the smaller size of these schools and self-selection by teachers and staff should lead to higher levels of interpersonal trust and better collaborative relationships and professional culture. Reasons such as these suggest that charter schools would be more likely to use and incorporate evaluation into regular operations at the school.

Nevertheless, charter schools face a number of obstacles in using evaluation or fulfilling their obligations for accountability. These include vague, incomplete, and often unmeasurable goals and objectives included in the charter contracts and the overwhelming start-up issues that charter schools face. Given the enormous start-up challenges related

to facilities, staffing, and recruiting students, it is no surprise that charter schools place evaluation low on the list of priorities. Further obstacles include the often new and inexperienced school leaders and the high turnover of teachers and administrators. Another critical obstacle is the weak signals that the schools might receive from oversight agencies.

While there are tremendous differences between and within states, it generally can be said that evaluation conducted by individual charter schools is weak and limited in scope. Because of demands for accountability and because they are not sufficiently proactive in demonstrating success, charter schools have largely become *evaluated* rather than *evaluating* schools.

Autonomy for Accountability

As noted earlier, the academic performance of charter schools is mixed at best. Defenders of charter schools rationalize or justify this less-than-expected performance by pointing out that many traditional public schools are also failing, and thus it is unfair to hold charter schools to high standards when other schools are not.

Nationally, between 6 and 7 percent of all charter schools have closed, which is surprising given their relatively weak performance. One reason for the lack of closures is insufficient evidence about school performance from which authorizers can make renewal, nonrenewal, or revocation decisions. Political and ideological factors can also explain—in part—why many authorizers are closing so few poor-performing charters.

Closing poor-performing charter schools will strengthen charter school reforms in two ways. First, removing these schools from the aggregate results for charter schools will increase their overall results. Second, closing such schools sends a strong message to other charter schools that the autonomy-for-accountability agreement is real.

While many traditional schools do perform far below established standards, this should not be used as a justification for excusing charter schools from the standards agreed upon in their contracts. The idea behind charter schools was not to replicate the existing system, which many argue suffers from a lack of accountability. Rather, they were envisioned as a means of pressuring traditional public schools to improve both by example and through competition. If charter schools are to serve as a lever for change, they must be better than traditional public schools, and they must be held accountable for their performance.

See also **Government Role in Schooling; No Child Left Behind; School Choice**

Further Reading

Buckley, Jack, and Mark Schneider, *Charter Schools: Hope or Hype?* Princeton, NJ: Princeton University Press, 2007.

Bulkley, K., and P. Wohlstetter, eds., *Taking Account of Charter Schools: What's Happened and What's Next.* New York: Teachers College Press, 2004.

Carnoy, Martin, Rebecca Jacobsen, Lawrence Mishel, and Richard Rothstein, *The Charter School Dust-Up: Examining the Evidence on Enrollment and Achievement.* Washington, DC: Economic Policy Institute; New York: Teachers College Press, 2005.

Fuller, B., ed., *Inside Charter Schools: The Paradox of Radical Decentralization.* Cambridge, MA: Harvard University Press, 2000.

Merseth, Katherine K., with Kristy Cooper, *Inside Urban Charter Schools: Promising Practices and Strategies in Five High-Performing Schools.* Cambridge, MA: Harvard Education Press, 2009.

Miron, G., and C. Nelson, *What's Public about Charter Schools? Lessons Learned about Choice and Accountability.* Thousand Oaks, CA: Corwin Press, 2002.

Noll, James William, ed., *Taking Sides: Clashing Views on Educational Issues,* 15th ed. Boston: McGraw Hill Higher Education, 2010.

Powers, Jeanne M., *Charter Schools: From Reform Imagery to Reform Reality.* New York: Palgrave Macmillan, 2009.

CHILD ABUSE

Amanda Singletary

Child abuse is generally defined in two ways. One is the nonaccidental injury to a child that requires medical attention. These are acts of commission. The second part of the definition is neglect, acts of omission where parents and other adults fail to meet the basic needs of the child. Nearly all experts concur that neglect is far more likely than other forms of abuse. The U.S. Department of Health and Human Services estimated that, in 2007, there were 794,000 victims of child abuse and neglect, approximately 1,500 of whom died as a result of the abuse. Sixty-two percent of the total victims experienced neglect, 18 percent were physically abused, sexual abuse harmed 10 percent, 7 percent were psychologically mistreated, and medical neglect accounted for 2 percent.

As with any abuse situation, the child abuse may be physical, psychological, emotional, sexual, or some combination. Clearly, these are broad categorizations for what constitutes the complex phenomenon of abuse, and this has made the whole domain of child abuse controversial. The societal expectation that parents are nearly exclusively in charge of the care and rearing of their children has meant that interventions into the private family setting have been likely only when abuse is very serious and can be documented.

The controversies surrounding child abuse are grounded in the question, Does the child stay in the home or get removed from the home? Society has made it known that abuse of a child is horrific. The problem is in how to stop the abuse with a solution that will best benefit the child. Specifically, the concern is over whether a child should be completely removed from the home or whether attempts should be made to maintain the family unit. When considering the solutions to child abuse, among the primary

controversies are questions about exactly what constitutes abuse, particularly with regard to physical discipline, and how other forms of domestic violence complicate the scene.

Causes of Child Abuse

The causes of child abuse are many, and not all are found in all cases. Child abuse is mainly perpetrated by an adult who wields physical and emotional control over a child. Many factors can relate to someone's risk to abuse children. Some of the factors at work in child abuse are cultural, social, and personal. In very early studies of child abuse, the assumptions were that abusers must be mentally ill. While that is an easy supposition, the evidence suggests that only around 10 percent of abusers have psychoses or severe personality disorders. Reliance on mental illness as an explanation has hindered a more complete understanding of child abuse. This has led recent researchers, such as Richard Gelles, to broaden the discussion to include other factors that might make one prone to abuse a child.

Personal psychological factors in parents can play a significant role in the risk of abuse. However, these factors usually relate to the stressors that parents might experience. Stress can arise from many sources, not the least of which is the task of parenting itself. It is a permanent status that at times can seem overwhelming, particularly for persons with inadequate support networks. Some children with special needs require additional care that heightens caregiving stress. Not all babies are equally easy-going, and those that seem more prone to crying can lead parents to question their skills. Stress is increased when one is a single parent, has lower income or is unemployed, is ill, or experiences conflict with a romantic partner. Furthermore, environmental stressors such as the family ideal, work, finances, and even health issues can cause a large amount of stress.

The use of alcohol or drugs reduces inhibitions and heightens the abusers' awareness of personal insecurities. Both alcohol and drugs can, through aggravating stress and impairing judgment, cause an abuser to verbally or physically attack a child for some perceived wrong. If an individual is a victim of prior abuse, he or she is more likely to become an abuser, too, although the individual is not destined to be abusive. Estimates are that 30 percent of abused children will grow up to be abusers, in contrast to 3 percent of persons who were not abused. Low self-esteem and feelings of inadequacy have also been linked to a greater tendency to abuse when compared with persons with higher levels of self-esteem. After prolonged exposure to negative opinions, an individual may become violent as a way of venting the built-up pressure and anxiety caused by low self-esteem.

Abuse is also used as a method to gain control over a child. A person who has a poor self-concept, low self-esteem, or has been a victim of prior abuse has a stronger need for control and power, because it is the ability to gain power and control that validates the abuser. This cyclical pattern is difficult to break. Often parents have very

little preparation for the tasks of parenting, have unrealistic expectations about what it entails, and have little understanding of how children can be expected to behave at various stages of development. The images of babies in most parenting magazines show a smiling, cooing, cherubic face; they don't show the child crying with a runny nose, messy diaper, or other distasteful daily occurrences of child rearing. Abuse may occur as an attempt to gain conformity from unruly children. For whatever reason, studies suggest that abusive parents tend to be much more demanding than nonabusive parents.

Society's focus on the ideal family creates stress when an individual realizes that he or she is not living up to society's standard of the modern family, be it by not making enough income, not living in the right neighborhood, or needing a two-income household in order to get by. Also, pressure from a boss at work may cause tension that adds to the build-up of stress. These stressors may create a volatile home life where abuse is the outlet for a massive release of pent-up stresses. And, unfortunately, children are likely to be the targets for the abusive release.

This inclusion of economic status in the likelihood of abuse is important. A number of studies suggest that child abuse is more likely in families from low socioeconomic backgrounds, although they differ on the reasons for why this is so. One explanation posits that it only appears that the rates are higher in poor families because they seek treatment in settings, such as public hospitals, in which the suspicion of abuse is likely

CHILD ABUSE ADVOCACY GROUPS

Child abuse prevention and advocacy Web sites have proliferated in recent years. Some are the Web sites of well-established nonprofit organizations, and others are solely cyberspace creations. Nearly all encourage visitors to the site to donate money to help the cause of education and advocacy. Because child abuse is an issue that commands attention and garners sympathy, particularly from those who identify with the child, it is a cause that persons are likely to donate toward. The so-called innocence of childhood is a strong cultural image, and it is easy to sell abuse as violating that innocence. This model of innocence is used as a contrast for data on abuse.

Some particularly useful Web sites and organizations devoted to child welfare include www.childhelp.org and www.cwla.org. Childhelp is a large nonprofit organization that uses celebrity ambassadors, product partnerships, and media outlets to spread the word about child abuse. Its hotline 1-800-4-A-Child is a well-publicized reporting mechanism. The Child Welfare League of America is the oldest and largest child abuse information and prevention organization in the country. In contrast to these long-standing organizations (Childhelp was founded in 1959; the Child Welfare League in 1920), www.childabuse.com is purely an online venture and promotes prevention through education and awareness.

to be reported. Wealthy families may seek care from a private physician who may be more reluctant to label a suspicious injury as abuse. So wealthier families may be better able to hide abuse. Another explanation for the link between poverty and abuse is the stress that accompanies poverty. Additionally, low-income parents have less education, inadequate support systems, higher rates of substance abuse, and are more likely to be young. Compounded, these risk factors make being a lower-class child a potentially harmful position. Low-income parents tend to be single parents. The risk of neglect among low-income children is an astounding 44 times higher than among middle- and upper-income children.

Contrary to the stereotype of women's constant nurturing, evidence indicates that, in cases of child abuse, women are as likely as men to be the perpetrators. The majority of low-income families are mother-only families. Some of these women are no doubt forced into the mothering role by a lack of well-paying or fulfilling employment, as well as by unplanned pregnancies. Unwanted children are an added mental and economic burden, making them prone to abuse.

Consequences of Child Abuse

Because the causes of abuse are many, it follows that the consequences of abuse are just as numerous. Although statistics cannot tell the whole story of the consequences of child abuse, they can give insight into the frequency and severity of the problem. However, statistics about child abuse must be viewed with caution. Given the unacceptability of harming a child, parents are often inaccurate in their reporting of such behaviors, fearing legal reprisal and social condemnation. A lot of the statistics, then, come from the reports of teachers, physicians, social workers, and others who must make assumptions about the origin of injuries.

There are nearly 3 million reports of child abuse made each year, suggesting that awareness of the issue is resulting in some action. However, estimates are that the actual rates of child abuse are at least three times what are reported. According to Childhelp, one of the largest and oldest nonprofit organizations dedicated to the issue of child abuse, children between birth and age three are the most likely group to experience abuse. They are victimized at a rate of 16.4 per 1,000 children, compared with a rate of 12.3 per 1,000 children for all children under age 18. This means that, for every 1,000 infants and toddlers, more than 16 of them will be abused. Around four children die every day from abuse or neglect, and 79 percent of these juvenile homicide victims are children younger than four years old.

Consequences also encompass the likely future outcomes for the victims of abuse. According to data compiled by the U.S. Department of Health and Human Services, there can be many long-term consequences for children who are abused. Among them is a 25 percent greater likelihood of teen pregnancy, abused teens being three times less likely than nonabused teens to practice safe sex, increasing their risks of contracting

sexually transmitted diseases and AIDS. Abused children are nearly 30 percent more likely to abuse their own children.

Victimization through child abuse is also correlated with more contact with the criminal justice system. Children who experience child abuse and neglect are 59 percent more likely to be arrested as juveniles, 28 percent more likely to be arrested as adults, and 30 percent more likely to commit violent crime than are nonabused persons. Data indicate that, among the prison population, 36.7 percent of women inmates were abused as children, and 14.4 percent of men inmates were.

Psychological and psychiatric outcomes also are linked with child abuse. Eighty percent of young adults who had been abused met the diagnostic criteria for at least one psychiatric disorder at the age of 21. Common disorders among this group included depression, anxiety, eating disorders, and post-traumatic stress disorder. Sexual abuse compounds these issues. Children who are victims of sexual abuse are 2.5 times more likely to abuse alcohol and 3.8 times more likely to become addicted to drugs than their nonabused peers. In fact, nearly two-thirds of those persons in drug abuse treatment programs report having been abused as children.

Controversies

Controversies have surfaced when determining healthy solutions for child abuse victims. The key controversies concerning child abuse are the definition of abuse, the presence of other risk behaviors and factors, and whether the child should remain in or be removed from the home. Solutions to child abuse are difficult to create, because each child abuse case is different and the solution that works for one child may harm another child even more. When handling child abuse cases, caseworkers must do their absolute best not to add to the child's trauma. It is this desire to minimize an abused child's trauma that makes finding solutions to these controversies difficult.

Defining Abuse

The definitions of child abuse have changed significantly over time. No longer do parents have rights of life and death over children, as was common in the days of the Roman Empire, when children not blessed by their fathers were left to die through neglect. Nor can parents in the United States turn their children into commodities by selling them to the highest bidder. Today the question of abuse is focused on the point where a parent crosses the fine line between acceptable use of force and unacceptable abuse, and with what frequency. At what point should a neighbor, teacher, physician, or social worker intervene? Extreme cases, such as burning, imprisoning, or beating are easy to define as child abuse. However, there is much gray area in what is acceptable behavior of a parent toward a child.

Definitions that focus only on physically hurting the child might be too broadly interpreted. The result is that any physical act, such as tightly holding a toddler during a

tantrum, becomes defined as abuse by some. The legal standard recognizes that it is not always easy to distinguish between physical discipline and abuse. The former condition is the result of what is considered reasonable by the cultural context. While 90 percent of parents of three- and four-year-olds have used spankings on their child and nearly that many consider it acceptable to do so, does that mean 90 percent of parents are abusive? This question is not easily answered but is important because the definition of abuse that is applied by social workers, courts, and so on can determine whether children are permitted to remain with the parent or whether they are taken in by the state. In fact, the American Bar Association has no universally recognized definition of child abuse to use in court settings.

As difficult as defining physical abuse is in practice, defining neglect is even more difficult. While abandonment or gross failure to provide for the basic needs of a child are clear, statutes that define parental negligence in broad ways may mean that different parenting models than the community norm, or failure to instill morals, or even permitting truancy are seen as negligent. In the early days of the home school movement, some parents were considered neglectful for not sending their children for standard classroom instruction.

Defining Abusers and Settings

For many years there have been concerns over who is most likely to abuse a child. Stereotypes hold that the particularly likely culprit is a stepfather. While it seems easy to place the blame on a male, nonbiological family member because of the expectation that men are more violent than women and the supposition that biological ties are stronger than social ties, this is inaccurate. Biological parents are more likely than other persons to abuse a child, and it is the mother who is most likely to do so. This pattern is particularly true for African American families, which have a greater proportion of single-parent homes. Does this then mean that single black mothers are profiled as child abusers?

Police who are called to homes to investigate domestic disturbance calls are taught to pay attention to any children who are present for signs of abuse. Statistics indicate that when women are abused in a domestic setting, their children have a higher likelihood of being abused as well. This might be abuse from the woman's abuser or, paradoxically, abuse from the woman herself. It is often extremely difficult to determine who in a household is abusing whom.

Interventions

Since the 1950s, many private and public agencies have dedicated themselves to helping children. One of the primary tasks of the agencies involves educating the public about the issues surrounding child abuse and proposing specific solutions. It has only been recently that laws have been developed to aid children, such as the Child Abuse

Prevention and Treatment Act of 1974. The goal of this act was to encourage states to develop their own laws and strategies to protect children from maltreatment and neglect. While every state handles child abuse cases in a slightly different way and relies on slightly different administrative structures, they have been fairly successful in their assault on child abuse and neglect.

One of the most traumatic aspects of child abuse and neglect is the decision to remove the child from the home, even on a temporary basis. This is granted under the states' rights to protect the interest of the child, but the question that is raised is what to then do with the child. Options are limited. For infants and young children, the foster care system is their destination, at least on a temporary basis while abuse claims are investigated. For adolescents and severely disabled children, the care is frequently provided in a group home, where a small number of similar children are tended by a staff of child care workers. These decisions to remove children from the care of their biological parents are controversial for several reasons.

First, the expanding definitions of child abuse mean that children can be removed with far less proof than was needed in the past. Additionally, the numbers of cases that social workers and child advocates are saddled with mean that it takes some time for the data regarding each case to be gathered, leaving the child in foster care for longer periods of time than most state regulations initially intended. Second, parents may be encouraged not to contest the child's removal in order to avoid damaging allegations of abuse. After an assessment, the child may be sent back home, sometimes with court supervision and follow-up services, but sometimes without.

When individuals hear about a case of child abuse, they automatically want the child removed from the home. It is true that removing the child from the home is the most effective way to stop the abuse. But is tearing a child away from the only home he or she has known really helping the child? Young children are particularly prone to be victims of violence, but there is a common cultural idea that very young children need their parents (particularly their mothers) more than at any other age. Indeed, federal laws governing foster care encourage states to work vigorously to reunite children with their parents. Unfortunately, the frequent court reviews of the cases often just mean moving the child to a new foster placement.

In extreme cases of child abuse where the child's life is at risk, removal is the only option. However, temporary removal or family counseling might be more productive in the end if the abuser is taught alternative ways of managing anger and stress instead of using abusive measures. These types of interventions require a great deal of time, effort, and energy on the part of the abuser and the state counseling agencies and are often something that cash-strapped states are unable to provide.

Critics of the foster care system suggest that the system is broken and badly needs repair. Children are moved from one foster family to another on a frequent basis. Due to

an overwhelming need for foster care providers, many foster families receive little training for their role and may be caring for too many children. One of the great concerns is what happens to children who age out of the foster care system. At age 18, they are no longer under state care but may be poorly prepared to live as independent adults.

In some cases, parents must give up their rights to a child when the abuse has been determined to be too severe to attempt reuniting the family. However, it is extremely difficult for this to happen, because there is a high legal burden of proof for the court to terminate parental rights. Sometimes, the threat of criminal charges will push parents to voluntarily terminate their rights. When a child cannot be returned to the biological family and parental rights are terminated, adoption becomes available to the child. Adoption is another area of controversy. Society generally views adoption by a blood relative as the most beneficial for the child. However, abuse is a learned behavior. If a child's parent is the abuser, the assumption is that the parent's parent was probably abusive as well. In such a case, being adopted by a blood relative may be placing the child back in a potentially abusive situation. The underlying problem of these controversies remains, and until abuse can be prevented, no amount of intervention will be adequate.

See also **Corporal Punishment; Deadbeat Parents; Domestic Violence—Behaviors and Causes; Foster Care; Sex-Offender Registries (vol. 2)**

Further Reading

Child Welfare Information Gateway, http://www.childwelfare.gov

Child Welfare League of America, http://www.cwla.org

Childhelp USA Foundation, http://www.childhelpusa.org

Crosson-Tower, Cynthia, *Understanding Child Abuse and Neglect.* Boston: Allyn and Bacon, 2007.

Crouse, Janice Shaw, *Children at Risk: The Precarious State of Children's Well-Being in the United States.* New Brunswick, NJ: Transaction Publishers, 2010.

Dodge, Kenneth A., and Doriane Lambelet Coleman, *Preventing Child Maltreatment: Community Approaches.* New York: Guilford Press, 2009.

Finklehor, David, *Childhood Victimization: Violence, Crime, and Abuse in the Lives of Young People.* New York: Oxford University Press, 2008.

Flowers, R. Barri, *Domestic Crimes, Family Violence and Child Abuse: A Study of Contemporary American Society.* Jefferson, NC: McFarland, 2000.

Gelles, Richard J., *Intimate Violence in Families.* Thousand Oaks, CA: Sage, 1997.

Kurst-Swanger, Karel, and Jacqueline L. Petcosky, *Violence in the Home: Multidisciplinary Perspectives.* New York: Oxford University Press, 2003.

Monteleone, James A., *A Parent's and Teacher's Handbook on Identifying and Preventing Child Abuse.* St. Louis: G. W. Medical Publishing, 1998.

National Association to Protect Children, http://www.protect.org

National Children's Advocacy Center, http://www.nationalcac.org

Prevent Child Abuse America, http://www.preventchildabuse.org

CHILD CARE

Lori McNeil

Controversies concerning child care in the United States, which center on who should take responsibility, have moved in and out of the spotlight for more than 150 years. Social and moral issues concerning appropriate child care are motivated primarily by the dilemma of public versus private responsibility for the well-being of children.

Background

Although many people may believe that the issue of child care is relatively new, this issue has been part of the national landscape for quite some time. In fact, the first recorded formal day care began in 1854 in New York City (Rose 1999). At that time, these centers were called day nurseries, and they were modeled after the formal French day care centers called *crèches.* The primary purpose of the day nurseries was centered on issues of child neglect as opposed to a child care service. In the beginning, day nurseries were not federally funded ventures and instead tended to be funded by settlement houses and local service agencies.

During the Great Depression of the 1930s, however, child care use and offerings were greatly expanded as part of the Works Progress Administration (WPA) (Rose 1999). The major purpose for the inclusion of child care under WPA was to create jobs—in this case, jobs as child care workers. An even bigger expansion of child care occurred in 1943 under the Lanham Act. This expansion was necessary because of the incredible increase of women in the workforce during World War II. Because childcare offerings were not readily available during this era, the federal government funded more than 3,000 day care centers for approximately 60,000 children as part of this legislation. This expansion of child care extended to private business as well. During World War II, for example, the Kaiser Shipbuilding Corporation in Oregon was the first company to offer employer-sponsored child care. This offering consisted of two day care centers that operated 24 hours a day. When the war ended, so did the need for women in the workforce; thus, child care services greatly decreased at that time.

The 1950s saw continued allegiance to a more traditional mother's role—that is, one that is primarily focused on raising children. The 1950s ideology was questioned beginning in the 1960s, however, when a more liberal view of women's roles prevailed. At that time, more women were entering the workforce and that, in turn, influenced the amount of child care that was necessary. Since the 1960s, child care offerings and use have increased dramatically. This is so even in light of the demise of the first Comprehensive Child Development Bill in 1971. This bill would have authorized more than $2 billion specifically for child care services. President Nixon vetoed the bill, stating that, "for the Federal Government to plunge headlong financially into supporting child care development would commit the vast moral authority of the National Government to the side

of communal approaches to child rearing" (Robertson 2003, 7). Despite Nixon's veto in 1971, both federal and state governments have been major contributors to child care definitions, regulations, finance, and structure.

What Is Child Care?

Typically, child care is defined as care provided for children by those who are not the children's parents or guardians. Most often, the caregiving work for children is financially compensated. The federal government has attached an age requirement for its definition of child care that spans from birth through 12 years of age. The age category specifies eligibility of child care subsidy and tax credits regulated at the federal level.

Child care structure occurs in several arrangements: relative care, day care center care, family day care, and in-home care. Relative care is care provided by a family member outside the immediate family, most often by the grandmother of the child. Even though the grandparent or other family relative may be a blood relative to the child, financial compensation may still be part of the arrangement. In the past, relative care had been the most utilized style of child care arrangement. Today, day care centers are the most common type of child care used.

A day care center arrangement is care provided by a nonrelative that occurs in a public setting much like a school setting. In fact, day care centers are often part of school systems but also can be part of a workplace setting as well as a freestanding facility. The increased popularity of day care center care is due in part to the education environment it commonly offers. Traditionally, day care centers deliver child care services to a large number of children of wide-ranging ages. Because day care centers normally operate as a business venture—that is, occurring in a public setting and with a trained and fully compensated staff—day care centers tend to be described as the most reliable style of child care arrangement.

Family day care offerings are commonly located in the child care provider's home. Normally, a family day care provider serves as few as one child but usually not more than six children because of licensing regulations. Family day care tends to be used by families with younger children, because the setting is considered more homelike than the more institutionalized setting of day care centers. Thus, the transition for very young children from home to day care, it is reasoned, will be somewhat less stressful, as the care setting tends to be similar to a child's own home.

In-home child care is the least used style of child care arrangement, mainly because it is the most expensive form. In-home child care is care by a nonrelative that occurs in the child's home. This style of arrangement is also commonly known as care performed by a nanny or au pair. The child care provider provides care to a single child or family of siblings. Babysitting is not included in formal child care arrangements, because babysitting services are more likely those that are retained while a parent is involved in errands or other functions not associated with the workplace.

Another way to describe child care is based on licensing status. Child care is regulated by individual states. Although some subsidies originate from the federal government, each state sets standards for child care delivery, usually in the form of child care licensure. The states use regulation standards through the licensing of child care providers. The issue at hand is that much child care exists in an underground fashion—that is, unlicensed. Estimations of unlicensed child care in the United States range from 50 percent to as high as 80 percent (Clarke-Stewart and Allhusen 2005). Because unlicensed child care is virtually impossible to detect and thus regulate, issues such as child safety and the quality of care children receive are major concerns. Beyond the issue of licensing, a crucial component of child care involves the responsibility of caregiving.

Oppositional Terrains

The private responsibility debate suggests that children are best cared for within the family, preferably when the mother provides the hands-on daily care of her child(ren) (Robertson 2003). The assumption is that the rearing of children is a private matter, and caregiving is a natural purview of women generally and of mothers specifically. This ideology stems from the concept of the "cult of true womanhood." Here, women's highest calling is rooted in caregiving. That is, to be a woman means caregiving and that, in turn, means mothering.

THE COLUMBINE HIGH SCHOOL SHOOTINGS: A CASE FOR STAY-AT-HOME PARENTAL CHILD CARE

Unsupervised children indulged by affluent parents may be a recipe for disaster, and disaster is exactly what transpired at Columbine High School in April 1999. Opponents of day care suggest that it was precisely this combination that was the root cause for the Columbine atrocity. The shooters, Dylan Klebold and Eric Harris, came from homes where both parents worked outside the home, with the boys enjoying considerable autonomy and freedom. Although warning signs existed about the upcoming shootings, such as the videotapes explaining the plans, fascination with violent video games, and reports from school authorities about the boys' aggressive and threatening behavior, these signs appeared to go unnoticed by their parents. Harris's voice on a video saying, "thank God my parents never searched my room," offers support to these allegations of inattentive parenting. Moreover, Klebold describes a great deal of anger surrounding day care experiences, such as being teased and mocked. These experiences continued and were magnified during high school, and, interestingly, he pens an essay in his creative writing class about a day care center in hell that was operated by Satan (Robertson 2003). Examples such as these contribute to the private responsibility debate whose proponents contend that often the investment in a dual-career family occurs at the expense of children because little time exists to properly attend to the monitoring and well-being of children.

Arguments supporting the private responsibility debate often center on the issue of children's developmental health. This focus claims that children are likely harmed developmentally in day care settings. For example, children may have higher levels of aggressive behavior such as bullying or classroom disruptions when they have spent more time in daycare (Robertson 2003). This perspective originates from infant attachment theory posited by John Bowlby in 1951 in his highly influential work, *Maternal Care and Mental Health.* His work suggested that these harmful behaviors are found in children who have not had adequate opportunities to bond with their mothers, because the children are in day care settings instead of at home with their mothers.

The public responsibility debate centers on the notion that children are the collective responsibility of communities, states, and of the entire nation. Collective responsibility extends to the social, political, educational, and economical realm. Thus, this perspective suggests that child rearing is akin to education. Whereas education is funded and regulated at both the state and national level, so also should child care. This ideology gained momentum and notoriety with Hillary Clinton's book, *It Takes a Village* (1996).

Clinton (1996) argued that to create a strong and thriving nation, communities must be fully committed to children in every sense. Moreover, families need support and resources to grow strong children who are contributing members of society. Applied to the issue of child care, the contention is that child care must be made available and financed so that children are not left unsupervised and are not subjected to substandard child care venues. Thus, as part of our societal offerings and commitment to children, child care needs to be widely available, of high quality, and affordable.

Child Care and Media Influence

Although both the public and the private responsibility debate have merit, these dichotomous perspectives have been reduced to a clash between working and stay-at-home mothers. This controversial and very public debate, however, encompasses the much more complex issue of defining women's proper role in society.

Perhaps one of the best examples of this clash is one that played out in the media in the 1990s. The case of Jennifer Ireland garnered national attention and the media spotlight after she gave birth to her daughter when she was a 16-year-old high school student (Frost-Knappman and Cullen-Dupont 1997). The father of the child, Steven Smith, was also a high school student. After graduating from high school, Ireland was a recipient of a college scholarship at the University of Michigan. In 1993, Ireland attended the university and at that time enrolled her daughter in the university-affiliated day care center. In 1994, Smith sued Ireland for custody of the child, claiming that she was an unfit mother. Part of the claim centered on the assertion that Ireland was more interested in her academic career than in her daughter, because she chose to put her child in day care while she attended to her studies.

Initially, Smith won the case. Smith, who also was attending college, resided with his parents, explaining that his mother would provide care for his daughter while he worked and attended classes. The judge, Raymond Cachen, agreeing with Smith, concluded that a child, "raised and supervised by blood relations" as opposed to being "supervised a great part of the day by strangers" would be the better arrangement for the youngster (Frost-Knappman and Cullen-Dupont 1997). A public uproar ensued over the decision. Allegations of a backlash against women, specifically career women, were declared. A year later, the decision was overturned on appeal. The *Ireland v. Smith* case brought the day care debate into the media spotlight, as well as into public discourse.

A precursor to the Ireland case, the McMartin Preschool scandal likely wielded considerable influence in the original Ireland decision, as well as to public opinion surrounding the issue of child care. This case was first filed in 1983 with allegations of sexual abuse of a child while the child attended the McMartin Preschool day care center (Douglas and Michaels 2004). The case grew from abuse of a single child to more than 125 children, with accusations extending from torture and satanism to secret tunnels existing beneath the day care facility. The children's silence surrounding the abuse was allegedly coerced through the viewing of atrocities such as cutting the ears off live rabbits, smashing baby turtles, and beating a horse to death. Children reported abuse over an approximate 10-year span and/or including many members of the McMartin family in their allegations. After a lengthy trial, the allegations were found to be unsubstantiated, and the case was dropped by 1990 after an unsuccessful retrial. The impact of the unsupported allegations of nightmarish and perverse atrocities against young children lingered in the media and likely in many parents' minds as well. Since the McMartin case, cadres of other similar day care abuse cases have been played out in the media and consequently on a national platform. Some of the claims were certainly founded, but many others were reported to be pure fabrication. The media influence of the McMartin and Ireland cases, in part, explains the hypervisibility of child care. To have a full understanding of child care issues, however, an overview of the challenges families face in the provision of care for their children is necessary.

Child Care Challenges

Formalized child care has often been described as a patchwork system of caring for children. This description of child care is used because there is no formal or comprehensive style of caring for children outside of the immediate family. Parents, especially mothers, often feel immense frustration, because few options and conversely many gaps exist in securing child care. For example, licensed child care rarely exists after 6:00 P.M. This can be an insurmountable problem for women whose work hours do not fit the typical 9-to-5 workday.

The securing of infant care can also add to the challenge of child care. Normally, infant care is quite time intensive for providers, and they must subsequently reduce their

child care load to care for an infant. Because of this situation, providers are less likely to engage in infant child care, because they can earn higher incomes caring for toddlers and preschoolers. The very issue of child care cost continues to add to the challenges of child care. The cost of caring for children is staggering. For a single child in 2003, full-time child care costs averaged $4,000 to $6,000 per year and were significantly higher for infant care (Clarke-Stewart and Allhusen 2005).

The issues of child care gaps presented here, as well as child care cost generally, create the market for unlicensed child care that currently exists. Although many parents may feel they have no other options than to use unlicensed child care, it is important to note that unlicensed child care is not eligible for child care subsidies or tax credits. A parent, for example, may use a licensed day care center for one child and unlicensed care for her infant because either licensed care is not available or is too expensive. Because day care centers typically do not offer services beyond 6:00 P.M., the same mother may also need to employ yet another person to pick up the child care slack should her workday extend beyond 6:00 P.M. As parents patch together many different types of child care to successfully meet their child care needs, the patchwork system will likely be less stable and can be prone to last-minute cancellations and changes. In the previous example, only one of the three arrangements needs to fail, causing the mother to scramble to locate another last-minute arrangement. The alternative is that the working mother misses work, which also may translate to less money—money that is likely critical to the maintenance of the family.

The patchwork system of child care provision is a less-than-compelling one, but proponents of stay-at-home parental child care suggest that the problem in terms of changing the system is rooted in how the federal government organizes tax subsidies. At issue is the increasing of options to families as opposed to increasing the offerings of formal

THE DEVALUING OF PUBLIC CHILD CARE

It is surprising that child care provider pay is among the lowest of all professions, given the fact that child care cost is often described as exorbitant. In fact, it is commonplace for child care providers to earn wages far below poverty rates. Gas station attendants, zoo employees whose primary job is feeding animals, and bank employees responsible for counting money command higher wages than do child care providers. These startling examples provide motivation for child care providers to seek other employment out of financial desperation. Provider turnover rates are estimated to be 30 percent (Clarke-Stewart and Allhusen 2005). This rate is among the highest of all professions and more than four times that of teachers. Many child care experts caution, however, that what we call turnover, children experience as loss. Thus, turnover represents the loss of someone who is important in the lives of children, to whom children may have developed an important emotional attachment.

child care. This perspective focuses on working parents' discomfort with formalized child care and how, despite their uneasiness, they feel forced to participate in a dual-career formulation. Instead, they seek financially viable opportunities as an avenue to providing daily care for their children (Robertson 2003).

The challenge becomes an economic one for families who prefer stay-at-home parental child care. To begin addressing this concern, it is proposed that corporations should be encouraged to provide family-friendly policies such as flextime, part-time, and job-sharing options, as well as priority scheduling and telecommuting opportunities for parents. These offerings would provide families with choices to be able to construct workdays that promote direct caregiving to their children.

Moreover, the government can continue to increase options by raising the personal exemption allowance. This would reduce the tax burden on families, thereby allowing for one parent to remain at home to care for children. A more direct measure would include the expansion of the dependent care tax credit to extend beyond families who use formal child care to parents who provide stay-at-home parental child care. Currently, subsidy exists only for families who use formal child care and this, it is argued, occurs at the expense of stay-at-home parents. Thus, the organization of tax subsidy literally compels families to pay others to care for their children.

Conclusion

Whether, it takes a village or a stay-at-home mom and exactly what serves the best interests of children are still unknown. How children may be hindered developmentally or helped educationally is a controversy with a long history. The debate over public versus private responsibility to children will likely continue to be portrayed in the media and pondered within the home. As families continue to grapple with this issue, it is likely that communities, states, and the federal government will as well. Nonetheless, the struggle over women's appropriate role in contemporary society remains an active site of contention for all Americans.

See also **Early Childhood Education; Poverty and Public Assistance; Working Mothers**

Further Reading

Bowlby, John, *Maternal Care and Mental Health.* Geneva: World Health Organization, 1951.

Clarke-Stewart, Alison, and Virginia D. Allhusen, *What We Know about Childcare.* Cambridge, MA: Harvard University Press, 2005.

Clinton, Hillary, *It Takes a Village.* New York: Simon & Schuster, 1996.

Douglas, Susan, and Meredith Michaels, *The Mommy Myth: The Idealization of Motherhood and How It Has Undermined All Women.* New York: Free Press, 2004.

Family Research Council, http://www.frc.org

Fox, Isabel, and Norman Lobsenz, *Begin There: The Benefits of a Stay-at-Home Parent.* Hauppage, NJ: Barrons Educational Series, 1996.

Frost-Knappman, Elizabeth, and Kathryn Cullen-Dupont, *Women's Rights on Trial: 101 Historic Trials from Anne Hutchinson to Virginia Military Cadets.* Detriot: Gale, 1997.

Jackson, Mick, *Indictment: The McMartin Case.* HBO Home Video, 1995, 132 min.

Robertson, Brian, *Day Care Deception: What the Child Care Establishment Isn't Telling Us.* New York: Encounter Books, 2003.

Rose, E., *A Mother's Job: A History of Day Care 1890–1960.* New York: Oxford University Press, 1999.

Waldfogel, Jane, *What Children Need.* Cambridge, MA: Harvard University Press, 2008.

Zigler, Edward, Katherine Marsland, and Heather Lord, *The Tragedy of Child Care in America.* New Haven, CT: Yale University Press, 2009.

CLERGY SEX-ABUSE SCANDAL

Paul Boudreau

Beginning in the mid-1980s, a series of court cases began to reveal the extent of sexual abuse committed by clergy in various religious contexts. Although the popular press has tended to associate the clergy abuse scandals as a "Catholic" issue, in fact, the problem is widespread in many religious contexts, including non-Christian religions as well. Although the focus here is on the crisis in the American Catholic Church, in 1990, a survey conducted by the Center for Ethics and Social Policy at the Graduate Theological Union in Berkeley, California, discovered that 10 percent of clergy from across many Protestant Christian denominations that were surveyed said that they had been sexually active with an adult parishioner ("Clergy and Sexuality" 1990). It is believed that sexual abuse among rabbis approximates that found in the Protestant clergy. According to one study, 73 percent of women rabbis report instances of sexual harassment (Shaefer 2003). Sadly, an attempt at damage control has kept things quiet. Fear of lawsuits and bad publicity have dictated an atmosphere of hushed voices and outrage against those who dare to break ranks by speaking out.

In the 1990s, information started to become public about sexual abuse of children in Hare Krishna–movement schools of the 1970s and 1980s.

As universal as the problem of religious leaders and personnel sexually abusing the faithful is in the United States, the problem became most widely known (perhaps unfairly) when it was connected to the Roman Catholic Church. In fact, about 4 percent of the Catholic clergy that served between 1950 and 2002 sexually molested minors. Statistically, that is about average for the U.S. population in general.

The Catholic Church Faces a Crisis

On October 18, 1984, a grand jury in Louisiana returned a 34-count criminal indictment against Gilbert Gauthe, a Catholic priest of the diocese of Lafayette. The charges included 11 counts of aggravated crimes against nature, 11 counts of committing sexually

immoral acts with minors, 11 counts of taking pornographic photographs of juveniles, and a single count of aggravated rape, sodomizing a child under the age of 12. In an arrangement with prosecutors, Gauthe pled guilty to multiple counts of contributing to the delinquency of a minor and possession of child pornography and was sentenced to 20 years in prison. The family of one of the victims sued the diocese of Lafayette and was awarded $1.25 million. It was the first time in history that details of a Catholic priest's sexual abuse of children was brought to the public's attention, and it marked the beginning of what became the most horrifying and damaging scandal ever to hit the Catholic Church in the United States.

The year following Gauthe's conviction, his attorney, Raymond Mouton, along with Dominican Fr. Thomas Doyle, a canon lawyer on the staff of the Vatican's representative to the United States, and Fr. Michael Peterson, president of St. Luke's Institute, a resident treatment facility for troubled clergy, prepared a 100-page report titled *The Problem of Sexual Molestation by Roman Catholic Clergy: Meeting the Problem in a Comprehensive and Responsible Manner.* The report was presented to the Committee on Research and Pastoral Practices of the National Conference of Catholic Bishops/U.S. Catholic Conference (NCCB/USCC). The committee was headed by the archbishop of Boston, Cardinal Bernard Law. Every diocesan bishop in the United States received a copy of the report.

After studying the document, the NCCB/USCC committee concluded that the issues raised by the report and the report's recommendations had been adequately addressed by the bishops' conference, and no further action on the report was taken. The task of responding to allegations of sexual abuse by clergy was therefore left up to the individual dioceses.

The Bishops' Response

For the next 15 years, the NCCB/USCC (in 2001, the conference was renamed the United States Conference of Catholic Bishops, or USCCB) continued to study the problem. In 1993, the conference formed the Ad Hoc Committee on Sexual Abuse to make recommendations to the dioceses. These recommendations included:

- *Dealing effectively with priests who sexually abuse minors and others.* The committee sought to assist with diocesan policies, evaluate treatment centers, provide education through topical articles by competent authors, and act as a clearinghouse in related matters.
- *Assisting victims and survivors.* The committee provided articles focused on victims and survivors of clergy sexual abuse, along with a special section in the report on diocesan policies, and met with representatives of various national organizations and with individual victims/survivors. It also developed a 42-page article entitled "Responding to Victims-Survivors."

- *Addressing morale of bishops and priests.* The committee provided focal points to deal with criticism and presented regular reports to bishops to help deal effectively with allegations of clergy sexual misconduct. It also urged the Committees for Bishops' Life and Ministry and Priestly Life and Ministry, the National Federation of Priests' Councils, and the National Organization for Continuing Education of Roman Catholic Clergy to address this concern.
- *Screening candidates for ministry.* Working with the Committee on Priestly Formation and the National Catholic Educational Association, the committee surveyed seminaries on psychological screening and formation of candidates for ordination, focusing on issues of sexuality. Twenty-nine of 36 diocesan seminaries and 24 out of 42 college seminaries responded. They reported varying levels of psychological screening and formation of candidates. The committee proposed specific goals for consideration by the conference.
- *Assisting bishops in assessing possible reassignment.* The issue of reassigning offending clergy to nonparish ministry remained unresolved due to canon laws protecting the rights of clergy. (USCCB 2002).

In 1997, a jury awarded 11 plaintiffs $119.6 million in a record judgment against the diocese of Dallas, Texas. Later that same year, the diocese settled another sexual abuse lawsuit, agreeing to pay five victims $5 million. The following year, the diocese agreed to pay $23.4 million to eight former altar boys and the family of a ninth, who say they were sexually victimized by a priest, Rudolph Kos, who was subsequently removed from the priesthood by the Vatican and is serving a life sentence in prison. Still, the Catholic clergy sexual abuse scandal in the United States remained a sleeping giant.

The Scandal Breaks

On January 6, 2002, the *Boston Globe* launched a series of articles on the case of John Geoghan, a priest of the archdiocese of Boston who had been accused of molesting 130 children, convicted of fondling a 10-year-old boy, and sent to prison. (While in prison, Geoghan was murdered by another inmate.) The *Globe* investigation revealed a widespread pattern of sexual abuse by priests that was covered up by archdiocesan officials. The ensuing public uproar resulted in the resignation of Boston's archbishop, Cardinal Bernard Law, the following December.

It became evident that, despite years of programs, reports, and directives from the USCCB, the archdiocese had done little to respond to complaints of clergy sexual abuse. On the contrary, archdiocesan documents made public and testimony by victims and their families showed an unwillingness by archdiocesan officials to address the issue of clergy sexual abuse of minors. The report further revealed a pattern of intimidation of victims and their families and of protection of offending priests. The Pulitzer Prize–winning series sparked a national crisis of epic proportions.

In April 2002, Pope John Paul II requested a meeting of all U.S. cardinals and USCCB officers with Vatican officials in Rome to discuss the situation. In his address to the meeting, the Pope said:

> The abuse which has caused this crisis is by every standard wrong and rightly considered a crime by society; it is also an appalling sin in the eyes of God. To the victims and their families, wherever they may be, I express my profound sense of solidarity and concern. (Kennedy 2002)

The meeting concluded with a directive from the Vatican that the U.S. bishops prepare a set of national standards and policies for dealing with the sexual abuse of minors by clergy and other church personnel in the United States.

The Dallas Meeting

The following June, *The Charter for the Protection of Children and Young People* was adopted by the USCCB at its general meeting in Dallas, Texas, by a vote of 239–13. The Office of Child and Youth Protection is organized to implement the charter, and a National Review Board (NRB) was formed to monitor the function of the office. At its next general meeting in November, the USCCB adopted the text of the *Essential Norms for Diocesan / Eparchial Policies Dealing with Allegations of Sexual Abuse of Minors by Priests or Deacons.* At its promulgation the following March, the *Essential Norms* became particular law, binding on all dioceses in the United States.

At the same time, the John Jay College of Criminal Justice of the City University of New York was commissioned to embark on a descriptive study of the nature and scope of the problem of sexual abuse of minors by clergy within the Catholic Church in the United States. All diocesan bishops were directed to cooperate fully with the study.

The Scope of the Problem

In February 2004, the NRB released *A Report on the Crisis in the Catholic Church in the United States.* The NRB report was combined with the findings of the John Jay College report entitled *The Nature and Scope of the Problem of Sexual Abuse of Minors by Catholic Priests and Deacons in the United States.* The John Jay study found that, between 1950 and 2002, 10,667 individuals made allegations of sexual abuse against 4,392 priests, roughly 4 percent of the 109,694 priests serving during those 52 years. During that time, approximately 3,300 allegations were not investigated because the accused clergymen were dead, and another 1,000 or so claims proved to be unsubstantiated.

The report estimates that the total cost to the church for payment to victims, for their treatment and the treatment of priests, and legal expenses for defending lawsuits exceeded $533 million. The study also found that more abuse occurred in the 1970s than any other decade, peaking in 1980, and that approximately one-third of all cases were

reported in 2002–2003, and two-thirds have been reported since 1993. Prior to 1993, only one-third of cases were known to the church officials.

The ages of the victims vary widely: 27.3 percent were between ages 15 and 17; 50.9 percent were between the ages of 11 and 14; 16 percent were between ages 8 and 10; and 5.8 percent were under age 7. Of the victims, 81 percent were boys and 19 percent were girls. It was found that 149 priests caused 27 percent of allegations. More than half of the accused priests had 1 victim, and 3.5 percent of the priests were accused by more than 10 victims. The following are some highlights of the National Review Board report.

- There were inadequate screening procedures by dioceses and seminaries to weed out candidates unfit for the priesthood.
- There was inadequate seminary formation in the area of celibacy and sexuality.
- There is need of further study concerning the sexual orientation of priests, since 81 percent of the abuse was same-sex in nature.
- There is need of further study concerning celibacy, since the instances of sexual abuse reveal a malformation of human sexuality.
- There are special issues of spiritual life for bishops and priests, since both the acts of abuse by priests and the failure of bishops to put an end to it were "grievously sinful."

Additionally, the report found that, for many bishops, their responses to allegations of abuse "were characterized by moral laxity, excessive leniency, insensitivity, secrecy and neglect." Among issues it cited regarding the bishops were:

- A failure to understand the nature and scope of the abuse and the harm it caused.
- A failure to respond adequately to victims, both pastorally and legally.
- Making unwarranted presumptions in favor of the priest when assessing allegations.
- A culture of clericalism that sought to protect the accused priest.
- Aspects of church law that made it difficult to assess criminal penalties, even when it was clear the priest had violated the law.
- A culture of leniency that failed to recognize the horror of the abuse and the need to condemn it.
- An emphasis on secrecy and avoidance of scandal at all costs.
- Failure to report actions that were civil crimes to civil authorities.
- Overreliance on corrective therapy, depending on psychologists and psychiatrists to "cure" offenders and make them fit to return to ministry.
- Overreliance on attorneys, treating allegations as primarily legal problems rather than problems of pastoral and moral concern.

The report acknowledged that some bishops were aware of the serious nature of the problem early on and spent years trying to convince authorities to change church law so abusers could be taken out of ministry and dealt with more effectively. The study also said that bishops were often ill-served by the therapists and lawyers they depended on for guidance.

The report drew particular attention to the bishops who protected abusers and was very critical of those bishops who failed to act on behalf of victims. Such bishops, the report states, were guilty of neglect and insensitivity toward victims. They not only allowed the abuse to continue, they also spread the abuse and multiplied the number of victims by reassigning molesters to new and unsuspecting parishes.

Developing Safe Environments

With the publication of *The Charter for the Protection of Children and Young People,* 194 of 195 dioceses and archdioceses in the United States enacted Safe Environment programs designed to prevent further sexual abuse of children. All clergy, religious and lay church workers, school teachers, and volunteers must submit to fingerprinting and background checks by the FBI and the Department of Justice. Safe Environment classes and workshops are mandatory for all clergy and lay diocesan, parish, and school personnel. All diocesan and parish personnel must undergo instruction in mandated reporting, the legal responsibility of reporting to police any suspicion of sexual abuse of children. Pastoral settings must provide for adequate supervision of adults with children. No adult, clergy or lay, can be left alone or out of sight of another responsible adult while meeting with children. Children must be taught the dangers of sexual abuse by adults and how to recognize inappropriate behavior by adults. All adults, and especially parents, need to learn how to listen to their children and recognize the signs that a child is being sexually abused.

Developments after 2002

In 2003, the archdiocese of Boston paid $85 million to 552 people who claimed sexual abuse by Roman Catholic priests. In 2004, the diocese of Orange in California settled 90 abuse claims for $100 million. In November 2004, the USCCB established a data collection procedure, whereby dioceses make annual reports regarding allegations of sexual abuse of minors by priests and deacons and the costs associated with the abuse. The Center for Applied Research in the Apostolate (CARA) at Georgetown University was given responsibility for compiling and reporting the data.

According to the CARA reports, there were 898 new allegations of sexual abuse of minors by clergy in 2004, 695 new allegations in 2005, and 635 new allegations against 394 priests or deacons in 2006, in 193 of the 195 dioceses in the United States (Office of Child and Youth Protection et al. 2008). (Two dioceses refused to participate in the

survey.) About 70 percent of the reported incidents of sexual abuse occurred between 1960 and 1984. About 70 percent of the accused offenders were either deceased, had already been removed from ministry, or had left the priesthood.

About 60 percent of the priests or deacons named in 2006 had already been accused in previous cases. About 55 percent of the allegations were reported by the victim, according to CARA, and about 80 percent of the victims were boys.

In 2006, dioceses in the United States paid out more than $220 million in settlements to victims. In addition, another $180 million was spent for therapy, support, and legal fees. That compares to a $466.9 million total in 2005. Dioceses also spent over $25 million implementing the prevention and protection programs initiated by the charter.

On July 16, 2007, a judge approved a $660 million settlement between the Roman Catholic archdiocese of Los Angeles and more than 500 alleged victims of clergy abuse. The deal came after more than five years of negotiations and is by far the largest payout by any diocese since the clergy abuse scandal began. The archdiocese also paid $60 million the previous year to settle 45 cases that were not covered by sexual abuse insurance. Before that, the archdiocese, its insurers, and various Roman Catholic orders had paid more than $114 million to settle 86 claims.

In the following years, seven Catholic dioceses declared bankruptcy due to the enormous financial burdens of the settlements. They are Portland, Oregon; Tucson, Arizona; Spokane, Washington; Davenport, Iowa; San Diego, California; Fairbanks, Alaska; and Wilmington, Delaware.

By 2009, there was evidence that cases of abuse had declined sharply and that most of those that did arise were from decades before. Church leaders observed that, while the scandal was an extremely serious matter, it was, in practical terms, caused by a small fraction—perhaps no more than 1 percent—of the total number of 400,000 Catholic priests worldwide. Some Church leaders, such as Archbishop Silvano Maria Tomasi of Geneva, Switzerland, argued, moreover, that the abuse did not stem from the condition of pedophilia as it affected the various clerical offenders but rather was rooted in homosexuality, an argument that angered many gay rights groups for its implication that homosexuality is inherently deviant and/or harmful.

In Ireland, in November 2009, a report was released that revealed the existence of many abuses and various systemic problems in that country, and this was followed in early 2010 by a wave of similar revelations involving other European countries. The scandal once again was in the international headlines, and Church officials, including Pope Benedict XVI, made the matter a top priority. An additional round of new cases in the United States also caught the public's eye. Commentators noted that the gap between lay people's expectations (prosecution of abusers) and the Church's tendency to protect its own (clerical offenders) was finally beginning to close.

Is This Largely a "Catholic Problem"?

The crisis has given rise to considerable controversies and questions. For example, many asked whether priests are more likely to be pedophiles than nonclergy. The term *pedophile* has been used to describe priests accused of sexually abusing children. The American Psychiatric Association defines a pedophile as a person who has intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children. A prepubescent child is generally considered to be under age 13. But because prepubescence can be hard to determine, courts generally have set the age below which an accuser may be considered the victim of a pedophile at 11 years. Statistics show that 20 percent of clergy abusers can be accurately described as pedophiles; most have been accused of abusing victims who are younger adolescents.

Why Do Priests Sexually Abuse Minors?

In 1972, and again in 1977, studies by the NCCB/USCC found that more than half of all Catholic priests in the United States were underdeveloped emotionally, and that 8 percent were psychosexually maladjusted. It has been suggested by some researchers that this is due in part to the past practice of recruiting boys into training for the priesthood at an age when they have not yet begun their psychosexual development. At these predeveloping and developing ages, boys perceive the discipline of celibacy simply in terms of avoiding all thoughts, words, and deeds of a sexual nature.

Lacking the opportunities for social and emotional development in these areas, boys can grow into adulthood without the psychological tools needed to function normally in society. Their development can be frozen or fixated at a very early age, so that while they may be chronologically adults, they might still be children emotionally. Therefore, since they lack the ability to control sexual urges when they normally arise, those urges may be directed toward individuals who correspond to the levels of their development. In other words, they may direct their sexual urges toward children and adolescents.

Why Are the Victims Mostly Boys?

It has been suggested by some, most notably Vatican officials, that the problem is largely due to homosexuals in the priesthood. While that may be true, two factors must be considered. The first is that pedophiles, adults who are sexually attracted to prepubescent children, are not necessarily gender specific in their orientation. In other words, pedophiles are not attracted to boys or girls, but rather to children who are not yet sexually differentiated.

Second, in the Catholic culture of the 1950s, 1960s, and 1970s, priests generally had unrestricted access to young boys and adolescent boys. Girls were not permitted to be altar servers, and, in most cases, boys and girls were segregated in Catholic school classrooms and in many parish activities. Catholic parents generally perceived the attentions

of priests toward their sons as a good thing. On the other hand, priests who sought the company of girls were regarded with suspicion. Additionally, priests were expected to encourage vocations to the priesthood, and their close association with boys in the parish was considered normal. This allowed much greater freedom for predator priests to target boys.

Why Wasn't the Abuse Reported by Church Officials?

Since the Council of Trent some 400 years ago, the discipline of priestly celibacy had been rigorously enforced. Additionally, bishops were bound by church law to maintain strict secrecy when it came to violations of celibacy. All records of misbehavior by clergy were kept in confidential files, and officials were obliged not to reveal anything that might cause scandal. Any sexual misbehavior by priests was considered a violation of celibacy.

When credible allegations of sexual abuse did arise, offending priests were ordered to cease the behavior. In many instances, the offending priest was transferred to another parish where the sexual abuse continued. When it was determined that a priest had an ongoing problem, he was often sent to a treatment facility where he underwent therapy to resolve the problem. After a period of time, it was determined that the offending priest was no longer a threat to children, and he was returned to parish ministry. At the time, church law would have made it extremely difficult for a bishop to remove a priest from active ministry.

Why Did Bishops Allow the Abuse to Continue?

In some cases, bishops were simply negligent. It has been suggested by some researchers that many bishops lacked the expertise to properly evaluate the suitability of their priests to work safely with children. These bishops relied on the advice and counsel of experts, which, in many cases, was unreliable.

Additionally, it has been suggested that the culture of bishops effectively distanced them from any awareness of the damage sexual abuse was causing children. Insulated from family life and the mainstream of society, they lacked the awareness and sensitivity to adequately understand the problem. They perceived their first responsibility to be the protection of their own, and the welfare of the children became a secondary consideration. Therefore, they failed in their responsibility to care for their people.

Why Didn't Parents Force the Issue?

In the Catholic culture of the 1950s, 1960s, and 1970s, when most of the abuse occurred, respect and reverence for clergy was placed very high on the social scale. It was inconceivable to parents that priests would do such things to their children. The parents, when informed of the abuse, often reacted with denial. Plus, the credibility of children was often questioned. The word of the priest held sway over the stories reported by the

children. Compounding the problem, the children lacked the experience and vocabulary to adequately describe what was happening to them. When a child is sexually victimized by a superior adult, the child believes the adult is right, and it is the child who has misbehaved. During testimony that came out in the investigations, many adults who were sexually abused as children reported that they had tried to inform parents but were rebuffed.

Why Did It Take So Long for the Victims to Come Forward?

When a child is sexually abused, he or she must deal with the horror in the only ways available. Without adult allies, children will often repress the memory of abuse in the same way a person will not remember a terrible car accident. The memory of childhood sexual abuse may remain submerged for years until something like a newspaper article or television report will awaken the memory. Adults who have lived for decades with sexual and relational difficulties may suddenly become aware of the events that led to their dysfunction. When that happens, they may still lack the courage to come forward. The experience of shame is a very powerful motivator. It is only with a great deal of effort that individuals can break through the barrier of guilt and report their experiences.

Are Children Safe in Church?

With the implementation of Safe Environment programs in the dioceses, the Catholic Church may now be the safest place for a child to be. Statistics indicate that most sexual abuse of children occurs in the home by family members, trusted family friends, and neighbors. If anything, the sexual abuse scandal has provided society with a new awareness of the threat of sexual predators. The United States will no longer be deaf or blind to the plight of its children.

Church Scandals: Who Is Punished for Church Scandals?

Few would debate that guilty clergy and religious leaders should face legal penalties for their behavior in the same manner that any other citizen should. Furthermore, punitive financial damages (often into the millions of dollars) are a common form of legal recourse in the United States in legal actions against large institutions. However, in the case of a church, are there circumstances that make this a complex issue of justice? There have been church members, both clergy and laity, who have openly wondered whether large-scale financial suits are the most effective, or even fair and just, manner to deal with the issues. In fact, it has been argued that many entirely innocent people are punished by punitive financial awards against a church institution that must then sell property (often quickly), lay off staff, and/or lower salaries, because of the abuses of a minority of church staff and officials. Often the most vulnerable properties, offices, and personnel, are those dealing with minority or marginal communities within the church—and it is arguable that this is much more common in the cases of church institutions losing

a large financial court case than a major industrial or commercial company facing a major financial payment. Who, in fact, is paying the price for these settlements of abuse scandals?

See also **Child Abuse; Sex-Offender Registries (vol. 2); Sexual Assault and Sexual Harassment (vol. 2)**

Further Reading

Bausch, William J., *Brave New Church: From Turmoil to Trust.* New London, CT: Twenty-Third Publications, 2001.

Berry, Jason, *Lead Us Not into Temptation: Catholic Priests and the Sexual Abuse of Children.* New York: Doubleday, 1992.

Boston Globe Investigative Staff, *Betrayal: The Crisis in the Catholic Church.* Boston: Little Brown, 2002.

"Clergy and Sexuality," *Christian Century* (March 7, 1990).

Cozzens, Donald B., *The Changing Face of the Priesthood: A Reflection on the Priest's Crisis of Soul.* Collegeville, MN: Liturgical Press, 2000.

Doyle, Thomas P., A. W. Richard Sipe, and Patrick Wall, *Sex, Priests, and Secret Codes: The Catholic Church's 2,000-Year Paper Trail of Sexual Abuse.* Santa Monica, CA: Bonus Books, 2006.

Frawley-O'Dea, Mary Gail, *Perversion of Power: Sexual Abuse in the Catholic Church.* Nashville: Vanderbilt University Press, 2007.

Greeley, Andrew M., *Priests: A Calling in Crisis.* Chicago: University of Chicago Press, 2004.

Jenkins, Phillip, *Pedophiles and Priests: Anatomy of a Contemporary Crisis.* New York: Oxford University Press, 1996.

John Jay College of Criminal Justice, *The Nature and Scope of the Problem of Sexual Abuse of Minors by Catholic Priests and Deacons in the United States.* United States Conference of Catholic Bishops, 2002. http://www.usccb.org/nrb/johnjaystudy/

Kennedy, Frances, "Pope Finally Proclaims That Child Abuse Is Not Just a Sin. It Is a Crime." *Independent* (April 24, 2002).

Lytton, Timothy D., "Clergy Sexual Abuse Litigation: The Policymaking Role of Tort Law." *Connecticut Law Review* 39, no. 3 (February 2007): 809–895.

McMackin, Robert A., et al., eds., *Understanding the Impact of Clergy Sexual Abuse: Betrayal and Recovery.* New York: Routledge, 2009.

Office of Child and Youth Protection, *Charter for the Protection of Children and Young People.* United States Conference of Catholic Bishops, 2005. http://www.usccb.org/ocyp/charter.shtml

Office of Child and Youth Protection, National Review Board, and United States Conference of Catholic Bishops, *Report on the Implementation of the Charter for the Protection of Children and Young People.* March 2008. http://fl1.findlaw.com/news.findlaw.com/hdocs/docs/abuse/usccbabuserpt308.pdf

Plante, Thomas G., ed., *Sin against the Innocent: Sexual Abuse by Priests and the Role of the Catholic Church.* Westport, CT: Praeger, 2004.

Shaefer, Arthur Gross, "Rabbi Sexual Misconduct Crying Out for a Communal Response." *Reconstructionist Rabbinical College Journal* (November 24, 2003).

United States Conference of Catholic Bishops, *Essential Norms for Diocesan/Eparchial Policies Dealing with Allegations of Sexual Abuse of Minors by Priests or Deacons.* 2002. http://www.usccb.org/bishops/norms.shtml

CORPORAL PUNISHMENT

Susan Cody-Rydzewski

One of the most divisive debates in contemporary family sociology and child psychology centers on corporal punishment, known to most persons as spanking. Corporal punishment is the most widespread and well-documented form of family violence. In recent years, scholars as well theologians have debated the question of whether corporal punishment is an appropriate form of child discipline. This debate is particularly interesting in that it is relatively new and it taps into an area of firmly entrenched beliefs and values held by most Americans: that family is a private institution and that government should be minimally involved in guiding or mandating parenting practices. Furthermore, for most of U.S. history, it was assumed that good parents used physical discipline and that an absence of physical punishment would be detrimental to the normal development of children. Indeed, the Society for the Prevention of Cruelty to Animals was established prior to any such organization formed on behalf of children's welfare. Both social as well as religious ideologies strongly legitimated the use of physical punishment in the home. The debate over corporal punishment is so volatile that the few scholars who dare study it empirically seldom have intellectual comrades. This is one area of social life in which even the most progressive-minded individuals find themselves in dissension with academia and perhaps personally conflicted. Indeed, one of the most prominent and widely recognized scholars in this area confronted quite a bit of resistance from publishers when attempting to market his book.

The scholarly study of corporal punishment is relatively new, with the vast majority of empirical studies conducted since the late 1950s. However, a few references to corporal punishment or harsh parenting appeared as early as the 1920s. Interestingly, in the 1960s, a popular magazine reported that there were more child deaths due to parental infliction than due to diseases. Despite this claim, many parental advice books make no mention of corporal punishment whatsoever, suggesting that the decision of whether to use it is a private one and must be decided by individuals. Culturally as well, the phenomenon is often either ignored or presumed normal and inevitable. Not surprisingly, most of these early works found that the vast majority of parents queried admitted to the use of physical punishment. Furthermore, in the early to mid-1900s, the majority of child psychologists approved of or ignored corporal punishment. To be sure, the trend among early scholars and child experts was to either actively endorse or tolerate the use of corporal punishment by parents against children, at least on occasion. One notable exception to this was Benjamin Spock, who was perhaps the most well

known pediatrician and parenting expert of the 20th century. In his popular book, *Baby and Child Care,* he argued against the use of corporal punishment unless absolutely necessary. Spock later changed his position, arguing against the use of corporal punishment under all circumstances. Critics of Spock suggest that he led the trend toward more permissive parenting.

Today, experts are divided on the issue, although awareness of the potentially harmful consequences of corporal punishment is higher today than ever before. Consequently, disapproval of corporal punishment seems to have grown somewhat among scholars and those who offer parenting advice, although, even as late as the early 1990s, relatively high levels of support have been found among general practitioners and pediatricians.

Attitudes toward Corporal Punishment

The vast majority of U.S. parents support the use of corporal punishment. This is peculiar in light of the purported overwhelming concern that Americans have about violence in society generally and certainly in relation to children and adolescents. In fact, parents who choose not to spank their children are in violation of a strong social norm and often encounter conflict with others. They may feel the need to justify their decision not to spank, whereas no justification for spanking is required.

Overall, corporal punishment is still commonly being used against U.S. children. A number of Americans actually favor corporal punishment over other methods of child discipline. Most studies of the incidence of corporal punishment reveal that more than 90 percent of children and adolescents have experienced some form of physical punishment. What may be surprising, however, is that the use of corporal punishment is fairly common across the life course of a child, often beginning during infancy and continuing well into adolescence and even into young adulthood. Approximately three-quarters of U.S. parents believe that spanking or slapping a 12-year-old child is necessary sometimes. Furthermore, studies of college students reveal that a significant proportion of them report having been slapped or hit by a parent in the recent past. One study found that one in four 17-year-olds is still being hit by a parent (Straus 2001). The only significant decline is in the use of the most severe kinds of child discipline.

It should be noted, however, that attitudes and actions can be incongruent with regard to corporal punishment. Many Americans who do not verbally endorse corporal punishment do, in fact, spank or slap their children. On the other hand, some of those who endorse it may not use it. Interestingly, attitudes do not predict behavior for parents of toddlers. Almost all U.S. parents of four-year-olds spank regardless of their approval or disapproval of corporal punishment. On the other hand, when looking at older children, attitudes are predictive of behavior. Parents of 16-year-olds who score high on approval of corporal punishment are more likely to use it. Personal experience with corporal punishment seems to be a strong predictor of attitudes as well as actions. Individuals who were spanked or slapped by a parent are more likely than others to indicate

that they favor spanking. Furthermore, those who say that they were hit by a parent are more likely to hit their own children, regardless of the children's age. Interestingly, in one study of parents who were hit but later chose not to hit or spank their own children, the influential variables seemed to be the educational level of the parents and their age at parenthood. The parents who decided to go against their upbringing—those who chose *not* to hit—were more highly educated and became parents at later ages.

All states give parents the right to use physical punishment against their children, regardless of the children's age. It may be surprising to learn that even spanking or hitting with an object such as a belt remains legal in the United States. More than 95 percent of parents of three-year-olds reported that they had been hit by their parents. Approximately 60 percent of parents admit to hitting their 10- to 12-year-old children. The lasting effect or mental imprint of having been physically punished is evident in the finding that 40 percent of adults over the age of 60 can recall being hit by their parents.

Little difference has been found between single-parent and two-parent families when it comes to the use of corporal punishment. It does appear that boys are hit more often than girls, although rates are not vastly discrepant. Adolescent boys are hit by both mothers and fathers, while adolescent girls are more often hit by mothers. There is evidence to show that mothers, in general, use corporal punishment more often than fathers, but this is generally assumed to be a consequence of the different amounts of time parents spend with children, with mothers spending considerably more time with children than fathers. Since it is known that men are more physically aggressive and more violent in all other areas of social life, it is assumed that if men spent as much time with children as women did, the use of corporal punishment by fathers would exceed that of mothers.

Religiosity, Region, and Corporal Punishment

Support for corporal punishment in the United States historically has always been high and is often linked to religious or regional factors. Violence against children and babies is well documented and dates back to the biblical period. Historically, most forms of child punishment would today be considered severe child abuse. Parents were instructed to chastise and control errant children through such methods as swaddling, whipping, burning, drowning, castration, and abandonment. Puritans held a strict belief in original sin, and parents were instructed to, in a very literal sense, beat the devil out of their children. Early U.S. schools used corporal punishment so frequently that the birch rod became a symbol of education. The not-too-distant past contains reports of special education teachers twisting and grabbing students' arms, hitting or banging their heads onto desks, and smearing hot sauce into their faces and mouths.

In the 1970s, it was found that Baptists were more likely to have experienced physical punishment at home than were persons from other denominations. In general, corporal punishment is more strongly supported by conservative or fundamentalist Protestants

than by others. This association is explained by the emphasis on biblical literalism, biblical inerrancy, and original sin found among these religious traditions. In addition, Christians from more conservative traditions often embrace a view of the family that is hierarchical—with children, as well as wives, subsumed under the headship of men. Fundamentalist Protestants and conservative Catholics are also more likely than others to support the use of corporal punishment in schools. Not surprisingly, it also has been found that conservative Protestants are, for the most part, not persuaded by social science research to modify their familial practices. On the contrary, conservatives may identify social science scholarship, as well as intellectual pursuits more generally, as antithetical to Christian beliefs and threatening to family life. Popular theologian and author James Dobson, for example, has explicitly rejected the use of scientific inquiry to explore the appropriateness of various parenting practices. Dobson has also suggested that children suffer from an inherent predisposition toward selfishness and rebellion.

ALTERNATIVES TO CORPORAL PUNISHMENT

Past studies have considered the effects of using various methods of discipline on child outcomes. For instance, the use of reasoning alone has proven to be just as effective in correcting disobedience as the use of reasoning combined with corporal punishment. Time-out is a type of punishment in which a child is removed from a volatile situation for a short period of time. The rationale underlying time-out is that removing someone from a reinforcing situation deters and discourages him or her from repeating the offense. Time-out is based on a contingency model of human behavior that suggests that some combination of removal of or provision of valued or devalued resources will shape behaviors. Parents and teachers may increase good behaviors and decrease bad behaviors by either giving the child something he or she values, such as praise, toys, or tokens, or by removing something important or by removing the child from a pleasurable or enjoyable experience.

It has been shown that mothers who use time-out without physical correction are just as effective in controlling their children as mothers who use time-out with physical enforcement. Long-term studies reveal that behavior problems improve if and when parents desist in the use of corporal punishment. Today, many parenting experts and family scholars recommend some combination of providing clear guidelines, role modeling, rewarding good behavior, and demonstrating love and affection to children as the most effective ways to elicit good behavior. Screaming, criticizing, and limiting recognition of bad behavior are all discouraged, because they exacerbate behavior problems in children. In general, children whose parents give them prescriptive or affirmative instructions (telling children what *to* do rather than what *not to* do), praise them often, model appropriate behavior, and use calming reinforcements, such as time-out, are more well adjusted and better behaved than children whose parents rely on escalating methods such as yelling and spanking. Over time, children's noncompliance may result in the parents intensifying these methods, which increases the risk of physical or verbal abuse against the child.

Attitudes toward corporal punishment vary regionally as well. In general, persons living in the Southeast are more likely to approve of corporal punishment, both at home and in schools. This is not surprising in light of other findings that reveal that Southerners hold more conservative attitudes in many areas, including gender roles, sexuality, race, and religion. In particular, the association between region and approval of corporal punishment has been linked to the predominance of religious conservatism and biblical literalism found in the southern region of the United States. In fact, a small number of states concentrated in what is commonly referred to as the Bible Belt—including Alabama, Mississippi, Tennessee, Georgia, and South Carolina—account for the majority of school spankings nationally. Interestingly, recent studies demonstrate that the most noteworthy aspect of regional variation in corporal punishment attitudes does not center on the South's approval of corporal punishment, but rather the rejection of corporal punishment found in the Northeast. In general, the Northeastern region has the least amount of legitimate, or culturally sanctioned, violence.

Southern support for corporal punishment has also been linked to lower levels of education, lower household incomes, and racial composition. It should be noted, however, that research in this area has resulted in a myriad of findings, some of which are complex and contradictory. For example, African American parents have been shown to express approval for corporal punishment at higher levels than whites, although some studies find that white parents are more likely than African American parents to use corporal punishment. In addition, some studies find little or no correlation between the use of corporal punishment and socioeconomic status, presumably because support for corporal punishment in the United States has been, and continues to be, extremely high due to a variety of social, cultural, and religious reasons.

In conclusion, it has been found that mothers spank more than fathers and younger parents more than older parents. Individuals who were spanked as children are more likely than others to spank their own children. Also, spouses involved in violent marriages are more likely to hit their children than spouses in nonabusive relationships. The relationship between social class and use of corporal punishment has been researched extensively, and this research has produced mixed findings. Perhaps an accurate summary statement is that, while some studies find greater approval and more use of corporal punishment among lower-income households, corporal punishment is so widely accepted and approved in U.S. culture that it is commonly found among and across all social classes.

Effects of Corporal Punishment

The effects of corporal punishment are well documented and sobering. Studies reveal that individuals who were physically punished by parents or caregivers are more likely to be physically aggressive with others, including one's spouse; to severely attack one's siblings; to imagine or engage in masochistic sexual practices; to physically abuse one's children; to have depressive symptoms and suicidal thoughts; to become delinquent as a

juvenile; and to have lower lifetime earnings. The more often one was subjected to corporal punishment during adolescence, the lower the chances of being in the top 20 percent of all wage earners. It is worth reiterating that, contrary to conventional wisdom, a number of studies demonstrate that spanking children actually places them at greater risk for adjustment and behavior problems.

It has also been found that states in which teachers are permitted to hit children have a higher rate of student violence as well as a higher homicide rate. Nations that approve of the use of corporal punishment by teachers have higher infant murder rates than do other nations. This association is explained by using a so-called cultural spillover theory. That is, nations that strongly support corporal punishment in schools tend to have wide levels of support for the practice and consequently high rates of its usage at all ages and across varying circumstances and situations. Therefore, the likelihood that someone—a parent, teacher, day care worker, or clergyperson—will use corporal punishment, even against an infant, is higher in such societies. Furthermore, the likelihood of corporal punishment resulting in death is obviously much higher for infants than for other age groups.

See also **Child Abuse**

Further Reading

Bitensky, Susan H., *Corporal Punishment of Children: A Human Rights Violation.* Ardsley, NY: Transnational Publishers, 2006.

Crary, Elizabeth, *Without Spanking or Spoiling: A Practical Approach to Toddler and Preschool Guidance.* Seattle: Parenting Press, 1993.

Donnelly, Michael, and Murray A. Stras, eds., *Corporal Punishment of Children in Theoretical Perspective.* New Haven, CT: Yale University Press, 2005.

Hyman, Irwin A., *Reading, Writing, and the Hickory Stick: The Appalling Story of Physical and Psychological Abuse in American Schools.* Lexington, MA: Lexington Books, 1990.

Spock, Benjamin, *Baby and Child Care.* New York: Simon & Schuster, 1996.

Straus, Murray A., *Beating the Devil out of Them: Corporal Punishment in American Families and Its Effects on Children.* New Brunswick, NJ: Transaction Publishers, 2001.

Wyckoff, Jerry L., and Barbara C. Unell, *Discipline without Shouting or Spanking: Practical Solutions to the Most Common Preschool Behavior Problems.* Minnetonka, MN: Meadowbrook Press, 2002.

CREATIONISM, INTELLIGENT DESIGN, AND EVOLUTION

Glenn Branch

Evolution is clearly the most controversial topic in the public school science curriculum in the United States. Among scientists worldwide, there is no significant controversy about the basic scientific issues: the Earth is ancient (about 4.5 billion years old); living

things have descended, with modification, from common ancestors; and natural selection, by adapting living things to their environments, is a major driving force in the history of life. As the National Academy of Sciences (2008) observes, "The scientific consensus around evolution is overwhelming." Recognizing the centrality of evolution to biology, the National Association of Biology Teachers and the National Science Teachers Association have taken a firm stand on the pedagogical necessity of teaching evolution. Teaching evolution is a matter of social controversy, however, because of the prevalence of creationism—the rejection of a scientific explanation of the history of life in favor of a supernatural account—among the public. Not all antievolutionists are creationists, and not all creationists are fundamentalist Christians—there are creationists who identify themselves with Jewish, Islamic, Hindu, New Age, and Native American religious traditions. But the juggernaut of antievolutionist activity in the United States is propelled above all by Christian fundamentalism.

The Creationist Crusade

Creationists are not unanimous in their attitudes toward the antiquity of the Earth, common ancestry, and the efficacy of natural selection. Those who reject all three are called young-Earth or recent creationists; young-Earth creationism is currently the dominant form of creationism in the United States. Those who reject only the latter two are usually called old-Earth creationists; different forms of old-Earth creationism, corresponding to different interpretations of the book of Genesis to accommodate the antiquity of the Earth, include Day/Age and Gap creationism. There is not a standard term for creationists who reject only the efficacy of natural selection, perhaps reflecting their relative unimportance in the debate. The latest incarnation of creationism—intelligent design—is strategically vague in its attitudes toward the age of the Earth and common ancestry, in the hope of maintaining a big tent under which creationists of all varieties are welcome to shelter; its representatives run the gamut from antiselectionist creationists to young-Earth creationists, while the bulk of its public support seems to be provided by young-Earth creationists.

In its traditional forms, creationism is typically based on biblical inerrantism—the belief that the Bible, as God's word, is necessarily accurate and authoritative in matters of science and history as well as in matters of morals and doctrine. Inerrantism allows for the nonliteral interpretation of metaphorical or figurative language, and thus young-Earth and old-Earth creationists are able to agree on the principle of inerrantism while disagreeing on its application. Mindful of the legal failures of attempts to include creationism in the public school classroom, proponents of intelligent design sedulously disavow any commitment to the Bible, but such a commitment tends to surface nevertheless—for example, in their frequent invocation of the Gospel of John's opening verse, "In the beginning was the Word…" Whether avowing inerrantism or not, creationists typically express a passionate concern for the supposed moral consequences

CREATIONISM, INTELLIGENT DESIGN, AND EVOLUTION WEB SITES

Following is a sampling of organizations (and their Web sites) that are active in controversies over creationism, evolution, and their places in public science education. Where applicable, a relevant subsection of the Web sites is identified.

Creationist Web Sites

Young-Earth Creationist Organizations

- Answers in Genesis: http://www.answersingenesis.org
- Creation Research Society: http://www.creationresearch.org
- Institute for Creation Research: http://www.icr.org

Old-Earth Creationist Organization

- Reasons to Believe: http://www.reasons.org

Intelligent Design Organizations

- The Discovery Institute's Center for Science and Culture: http://www.discovery.org/csc
- Intelligent Design Network: http://www.intelligentdesignnetwork.org

Evolution Web Sites

Scientific Organizations

- American Association for the Advancement of Science: http://www.aaas.org/news/press_room/evolution
- The National Academies: http://www.nationalacademies.org/evolution/

Science Education Organizations

- National Association of Biology Teachers: http://www.nabt.org/
- National Science Teachers Association: http://www.nsta.org/publications/evolution.aspx

Anticreationist Organizations

- National Center for Science Education: http://www.ncseweb.org
- TalkOrigins Foundation: http://www.talkorigins.org

of the acceptance of evolution; the "tree of evil"—with evolution at its root and various evils, real and imagined, as its branches—is a common image in creationist literature. Creationism is primarily a moral crusade.

It is a crusade that is waged against any public exposition of evolution—in recent years, national parks, science museums, public television stations, and municipal zoos have faced challenges to their presentations of evolution—but the primary battleground is the public school system. Attempts to remove, balance, or compromise the teaching of evolution occur at every level of governance: from the individual classroom (where teachers may be

creationists, or may mistakenly think it fair to present creationism along with evolution, or may decide to omit evolution to avoid controversy), to the local school district, to the state government's executive or legislative branch or even—rarely, and then usually as a mere token of support—to the federal government. Such attempts are a recurring feature of U.S. science education from the 1920s onward, in a basically sinusoidal trajectory. Whenever there is a significant improvement in the extent or quality of evolution education, a creationist backlash quickly ensues, only to meet with resistance and ultimately defeat in the courts.

From *Scopes* to *Edwards*

The first phase of the antievolutionist movement in the United States, beginning after the close of World War I, involved attempts to constrain or ban the teaching of evolution in response to its appearance in high school textbooks around the turn of the century. Due in part to the rise of organized fundamentalism, antievolution legislation was widely proposed (in 20 states between 1921 and 1929) and sometimes enacted (in Arkansas, Florida, Mississippi, Oklahoma, and Tennessee). It was Tennessee's Butler Act, which forbade teachers in the public schools "to teach any theory that denies the story of the Divine Creation of man as taught in the Bible, and to teach instead that man has descended from a lower order of animals," under which John Thomas Scopes was prosecuted in 1925. Although Scopes's conviction was overturned on appeal, on a technicality, the trial exerted a chilling influence on science education. Under the pressure of legislation, administrative decree, and public opinion, evolution swiftly disappeared from textbooks and curricula across the country.

It was not until after the launching of *Sputnik* in 1957 that evolution returned to the public school science classroom. Fearing a loss of scientific superiority to the Soviet Union, the federal government funded a massive effort to improve science education, which included a strong emphasis on evolution. Particularly important were the biology textbooks produced by the Biological Science Curriculum Study (BSCS), established in 1959 by a grant from the National Science Foundation to the education committee of the American Institute of Biological Sciences. The popular BSCS textbooks, written with the aid of biologists such as Hermann J. Muller (who complained of the inadequate treatment of evolution in biology textbooks in a famous address entitled "One Hundred Years without Darwin Are Enough"), treated evolution as a central theme, and commercial publishers began to follow suit. Meanwhile, the Tennessee legislature repealed the Butler Act in 1967, anticipating the Supreme Court's decision in *Epperson v. Arkansas* (1968) that laws prohibiting the teaching of evolution in the public schools violate the Establishment Clause of the First Amendment.

After it was no longer possible to ban the teaching of evolution, creationists increasingly began to argue that creationism was a viable scientific alternative that deserved to be taught alongside evolution. Poised to take the lead was young-Earth creationism,

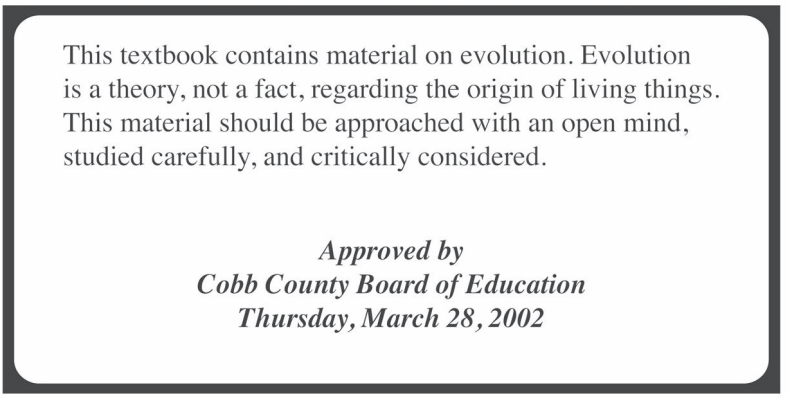


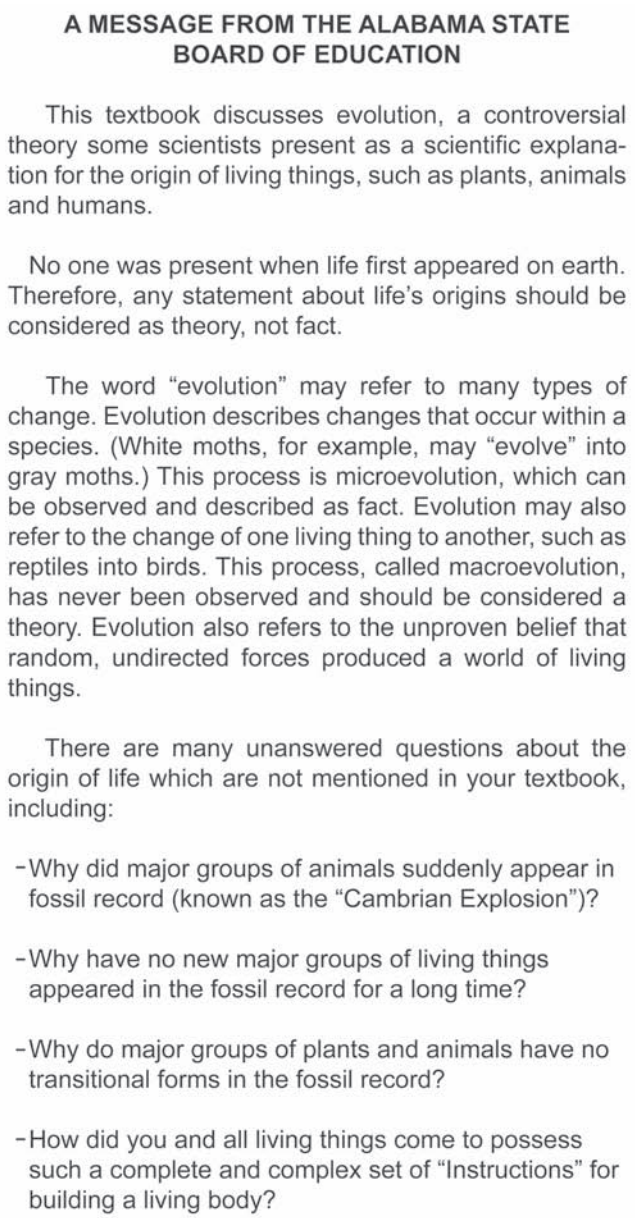
Figure 1. The Cobb County, Georgia, evolution warning sticker (2002–2005)

in the form of the creation science movement, which contended that there is scientific evidence that the Earth (and the universe) are relatively young (on the order of 10,000 years), that the Earth was inundated by a global flood responsible for a mass extinction and for major geological features such as the Grand Canyon, and that evolution is impossible except within undefined but narrow limits (since living things were created to reproduce "after their own kind"). Organizations such as the Creation Research Society (CRS) and the Institute for Creation Research (ICR) were founded in 1963 and 1972, respectively, ostensibly to promote scientific research supporting creationism. Creation science remained absent from the scientific literature but was increasingly prominent in controversies over science education.

During the second phase of the antievolution movement, science teachers, school administrators, and textbook publishers found themselves pressured to provide equal time to creation science. Creationists started to prepare their own textbooks, such as the CRS's *Biology: A Search for Order in Complexity* (1970) and the ICR's *Scientific Creationism* (1974), for use in the public schools. The movement received a boost in 1980 from Republican presidential nominee Ronald Reagan, who endorsed teaching creationism whenever evolution was taught. And legislation calling for equal time for creationism was introduced in no fewer than 27 states, successfully in both Arkansas and Louisiana in 1981. But both laws were ruled unconstitutional, the Arkansas law by a federal district court (*McLean v. Arkansas* 1982) and the Louisiana law ultimately by the Supreme Court (*Edwards v. Aguillard* 1987), on the grounds that teaching creationism in the public schools violates the Establishment Clause.

Intelligent Design

In the wake of the decision in *Edwards,* which held that the Louisiana law impermissibly endorsed religion "by advancing the religious belief that a supernatural being



A MESSAGE FROM THE ALABAMA STATE BOARD OF EDUCATION

This textbook discusses evolution, a controversial theory some scientists present as a scientific explanation for the origin of living things, such as plants, animals and humans.

No one was present when life first appeared on earth. Therefore, any statement about life's origins should be considered as theory, not fact.

The word "evolution" may refer to many types of change. Evolution describes changes that occur within a species. (White moths, for example, may "evolve" into gray moths.) This process is microevolution, which can be observed and described as fact. Evolution may also refer to the change of one living thing to another, such as reptiles into birds. This process, called macroevolution, has never been observed and should be considered a theory. Evolution also refers to the unproven belief that random, undirected forces produced a world of living things.

There are many unanswered questions about the origin of life which are not mentioned in your textbook, including:

- Why did major groups of animals suddenly appear in fossil record (known as the "Cambrian Explosion")?
- Why have no new major groups of living things appeared in the fossil record for a long time?
- Why do major groups of plants and animals have no transitional forms in the fossil record?
- How did you and all living things come to possess such a complete and complex set of "Instructions" for building a living body?

Figure 2. The Alabama evolution warning sticker (1996–2001)

created humankind," a group of creationists sought to devise a form of creationism able to survive constitutional scrutiny. A scant two years after *Edwards,* intelligent design was introduced to a wide audience in *Of Pandas and People* (1989; second edition 1993), produced by a fundamentalist organization called the Foundation for Thought and Ethics (FTE) and intended for use as a supplementary biology textbook. Like its creation science predecessors, *Of Pandas and People* contended that evolution was a theory in

crisis, on the common creationist assumption that (supposed) evidence against evolution is perforce evidence for creationism. Unlike them, however, it attempted to maintain a studied neutrality on the identity and nature of the designer, as well as on issues, such as the age of the Earth, on which creationists differ.

During the 1990s, the intelligent design movement coalesced, with its de facto headquarters shifting from FTE to the Center for the Renewal of Science and Culture (later renamed the Center for Science and Culture), founded in 1996 as a division of the Discovery Institute, a think tank based in Seattle. At the same time, as states began to introduce state science standards, which provide guidelines for local school districts to follow in their individual science curricula, the treatment of evolution was improving, penetrating even to districts and schools where creationism was taught—the Supreme Court's decision in *Edwards* notwithstanding—or where evolution was downplayed or omitted altogether. (The importance of state science standards was cemented by the federal No Child Left Behind Act, enacted in 2002, which requires states to develop and periodically revise standards.) The stage was set for the third phase of the antievolution movement, which is going on today.

Like the creation science movement before it, the intelligent design movement claimed to favor a top-down approach, in which the scientific establishment would be convinced first, with educational reform following in due course. But like creation science before it, intelligent design was in fact aimed at the public schools. Supporters of intelligent design have attempted to have *Of Pandas and People* approved for use in Alabama and Idaho; proposed laws to require or allow the teaching of intelligent design in at least eight states; and attempted to rewrite state science standards in at least four states, including Kansas, where, in 2005, the state board of education rewrote the standards to disparage the scientific status of evolution. As with a similar episode in 1999, the antievolution faction on the board lost its majority in the next election, and the rewritten standards were abandoned in 2007. Such activity at the state level was mirrored at the local level, where attempts to require or allow the teaching of intelligent design caused uproar sporadically across the country.

In the small Pennsylvania town of Dover, the result was the first legal challenge to the constitutionality of teaching intelligent design in the public schools, *Kitzmiller v. Dover.* After a summer of wrangling over evolution in biology textbooks, the Dover school board adopted a policy in October 2004 providing that "[s]tudents will be made aware of gaps/problems in Darwin's Theory and of other theories of evolution including, but not limited to, intelligent design." The board subsequently required a disclaimer to be read aloud in the classroom, according to which evolution is a "Theory…not a fact," "Gaps in the Theory exist for which there is no evidence," and intelligent design as presented in *Of Pandas and People* is a credible scientific alternative to evolution. Eleven local parents filed suit in federal district court, arguing that the policy violated the Establishment Clause. The court agreed, writing that it was "abundantly clear that

the Board's ID Policy violates the Establishment Clause," adding, "In making this determination, we have addressed the seminal question of whether ID is science. We have concluded that it is not, and moreover that ID cannot uncouple itself from its creationist, and thus religious, antecedents."

The Fallback Strategy

Like *McLean, Kitzmiller* was tried in a federal district court, and the decision is directly precedential only in the district. (The Dover school board chose not to appeal the decision, in part because the supporters of the policy on the school board were defeated at the polls.) Thus, there is no decisive ruling at the highest judicial level that explicitly addresses the constitutionality of teaching intelligent design in the public schools so far, and it is possible that a future case will ultimately produce a decision by the Supreme Court. Even before the *Kitzmiller* verdict, however, the Center for Science and Culture was already retreating from its previous goal of requiring the teaching of intelligent design in favor of what it called "teaching the controversy"—in effect, a fallback strategy of attacking evolution without mentioning any creationist alternative. To its creationist supporters, such a strategy offers the promise of accomplishing the goal of encouraging students to acquire or retain a belief in creationism while not running afoul of the Establishment Clause. Unless there is a significant change in church/state jurisprudence, forms of the fallback strategy are likely to become increasingly prominent in the anti-evolution movement.

A perennially popular form of the fallback strategy involves oral and written disclaimers. Between 1974 and 1984, for example, the state of Texas required textbooks to carry a disclaimer that any material on evolution included in the book is to be regarded as "theoretical rather than factually verifiable"; in 1984, the state attorney general declared that the disclaimer was unconstitutional. The state of Alabama began to require evolution disclaimers in textbooks in 1996; the original disclaimer (since revised twice) described evolution as "a controversial theory some scientists present as a scientific explanation for the origin of living things, such as plants, animals and humans." Disclaimers have been challenged in court twice. In *Freiler v. Tangipahoa* (1997), a policy requiring teachers to read a disclaimer that conveyed the message that evolution is a religious viewpoint at odds with accepting the Bible was ruled to be unconstitutional. In *Selman v. Cobb County* (2005), a textbook disclaimer describing evolution as "a theory, not a fact" was ruled to be unconstitutional, but the decision was vacated on appeal and remanded to the trial court, where a settlement was reached.

Attacking the content of textbooks is also a perennially popular form of the fallback strategy, especially in so-called adoption states, where textbooks are selected by a state agency for use throughout the state, and the publishers consequently have a strong incentive to accommodate the demands of the agency. In Texas, Educational Research

Associates (ERA), founded by the husband-and-wife team of Mel and Norma Gabler, lobbied the state board of education against evolution in textbooks, succeeding in having the BSCS textbooks removed from the list of state-approved textbooks in 1969. Owing both to changes in the Texan political landscape and opposition from groups concerned with civil liberties and science education, ERA's influence waned in the 1980s. But the tradition is alive and well: while evaluating biology textbooks for adoption in 2003, the Texas board of education was inundated with testimony from creationists complaining of mistaken and fraudulent information in the textbooks. All 11 textbooks under consideration were adopted nevertheless.

Calling for critical analysis of evolution—and, significantly, *only* of evolution, or of evolution and a handful of issues that are similarly controversial, such as global warming or stem-cell research—is the latest form of the fallback strategy. Its most conspicuous venture so far was in Ohio, where, in 2002, after a dispute over whether to include intelligent design in the state science standards was apparently resolved, the state board of education voted to include in the standards a requirement that students be able to "describe how scientists continue to investigate and critically analyze aspects of evolutionary theory." The requirement served as a pretext for the adoption in 2004 of a corresponding model lesson plan that, relying on a number of creationist publications, appeared to be intended to instill scientifically unwarranted doubts about evolution. Following the decision in *Kitzmiller* and the revelation that the board ignored criticisms of the lesson plan from experts at the Ohio Department of Education, the board reversed itself in 2006, voting to rescind the lesson plan and to remove the "critical analysis" requirement from the standards.

Conclusion

The United States is not the only country with controversies about evolution in the public schools: In recent years, such controversies have been reported in Brazil, Canada, Germany, Italy, Malaysia, the Netherlands, Poland, Russia, Serbia, Turkey, and the United Kingdom. But the United States is clearly exceptional in the amount and influence of creationist activity—and of creationist belief. Comparing the levels of acceptance of evolution in the United States with those in 32 European countries and Japan, a recent report noted, "Only Turkish adults were less likely to accept the concept of evolution than American adults" (Miller, Scott, and Okamoto 2006) and plausibly attributed resistance to evolution among the U.S. public to three factors: the acceptance of fundamentalist religious beliefs, the politicization of science, and the widespread ignorance of biology. Longitudinally, the report adds, "After 20 years of public debate, the percentage of U.S. adults accepting the idea of evolution has declined from 45% to 40% and the percentage of adults overtly rejecting evolution declined from 48% to 39%. The percentage of adults who were not sure about evolution increased from 7% in 1985 to 21% in 2005."

These attitudes appear to be reflected in the public's attitude toward the teaching of evolution in the public schools. According to a pair of national polls (CBS News, November 2004; *Newsweek,* December 2004), a majority—60–65 percent—favors teaching creationism along with evolution, while a large minority—37–40 percent—favors teaching creationism instead of evolution. The situation is perhaps not quite so dire as these data suggest, however; in a poll that offered respondents a wider array of choices, only 13 percent favored teaching creationism as a "scientific theory" along with evolution, and 16 percent favored teaching creationism instead of evolution (DYG Inc., on behalf of the People for the American Way Foundation, November 1999). Still, it seems clear that, among the public, there is a reservoir of creationist sentiment, which frequently splashes toward the classroom. In a recent informal survey among members of the National Science Teachers Association (March 2005), 30 percent of respondents indicated that they experienced pressure to omit or downplay evolution and related topics from their science curriculum, while 31 percent indicated that they felt pressure to include nonscientific alternatives to evolution in their science classroom.

In addition to whatever creationist sympathies there are in the public at large, reinforced by the efforts of a creationist counterestablishment, there are also systemic factors that combine to sustain creationism and inhibit evolution education. Perhaps the most important among these is the decentralized nature of the public school system in the United States. There are over 15,000 local school districts, each with a degree of autonomy over curriculum and instruction, typically governed by a school board comprised of elected members of the community usually without any special training in either science or education. Each district thus offers a chance for creationist activists—who may, of course, be elected to school boards themselves—to pressure the school board to remove, balance, or compromise the teaching of evolution. Also important is the comparative lack of attention to preparing educators to understand evolution and to teach it effectively. Especially in communities with a tradition of ignorance of, skepticism about, and hostility toward evolution, it is not surprising that teachers who are neither knowledgeable about evolution nor prepared to teach it effectively often quietly decide to avoid any possible controversy.

There are signs of hope for supporters of the teaching of evolution, however, in addition to the consistency with which courts have ruled against the constitutionality of efforts to remove, balance, or compromise the teaching of evolution. Rallied by the spate of intelligent design activity, the scientific community is increasing its public engagement and advocacy, including outreach efforts to science educators in the public schools. Academic work in the burgeoning field of science and religion is producing a renewed interest in exploring ways to reconcile faith with science, while over 10,000 members of the Christian clergy have endorsed a statement affirming the compatibility of evolution with their faith. And the increasing economic importance of the applied biological sciences, of which evolution is a central principle, is likely to be increasingly cited in

defense of the teaching of evolution. Still, controversies over the teaching of evolution are clearly going to continue for the foreseeable future.

See also **Prayer in Public Schools; Religious Symbols on Government Property**

Further Reading

Alters, B. J., and S. M. Alters, *Defending Evolution: A Guide to the Evolution/Creation Controversy,* Sudbury, MA: Jones and Bartlett, 2001.

Bowler, Peter J., *Monkey Trials and Gorilla Sermons: Evolution and Christianity from Darwin to Intelligent Design.* Cambridge, MA: Harvard University Press, 2007.

Giberson, Karl, *Saving Darwin: How to Be a Christian and Believe in Evolution.* New York: HarperOne, 2008.

Larson, Edward J., *Trial and Error: The American Controversy over Creation and Evolution,* 3d ed. New York: Oxford University Press, 2003.

Miller, J. D., E. C. Scott, and S. Okamoto, "Public Acceptance of Evolution." *Science* 313 (2006): 765–766.

Miller, Kenneth R., *Only a Theory: Evolution and the Battle for America's Soul.* New York: Viking Press, 2008.

Moore, Randy, and Mark D. Decker, *More than Darwin: An Encyclopedia of the People and Places of the Evolution-Creationism Controversy.* Westport, CT: Greenwood Press, 2008.

National Academy of Sciences and Institute of Medicine, *Science, Evolution, and Creationism.* Washington DC: National Academies Press, 2008.

Numbers, Ronald J., *The Creationists: From Scientific Creationism to Intelligent Design,* rev. ed. Cambridge, MA: Harvard University Press, 2006.

Petto, Andrew J., and Laurie R. Godfrey, *Scientists Confront Intelligent Design and Creationism.* New York: W. W. Norton, 2007.

Scott, Eugenie C., *Evolution vs. Creationism: An Introduction,* 2d ed. Berkeley: University of California Press, 2009.

Singham, Mano, *God vs. Darwin: The War between Evolution and Creationism in the Classroom.* Lanham, MD: Rowman & Littlefield Education, 2009.

D

DEADBEAT PARENTS

Annice Yarber

A question that has appeared in recent years, largely as a result of the increases in divorce and nonmarital child bearing, is the question of whether child support enforcement leads to an increase in deadbeat parents. Over the last few decades, the United States has witnessed an increase in the number of parents, mainly fathers, who are not taking responsibility for their children. Many of these parents have come to public attention through the child support system. The child support system is fundamentally an economic phenomenon run by the various states with federal oversight and guidelines. Historically, its focus was on either recovering welfare money for the government or on preventing the government from having to expend money on single mothers and their children. However, in recent years, the focus has expanded to include ensuring the health and well-being of the nation's children. Along with this expanded focus has come an increase in the strict enforcement of child support obligations. Consequently, some parents who fail to comply with their child support obligations, for whatever reason, are at risk for fines and imprisonment and are labeled deadbeat parents. In fact, the Deadbeat Parents Punishment Act makes it a federal offense for a noncustodial parent to willfully fail to pay past-due support obligations for a child residing in another state.

Referring to these parents as deadbeats has spawned great debate regarding how child support is conducted in the United States. On one side of the debate are child advocates who suggest that we need to be more aggressive with child support policies in an effort to reduce childhood poverty. On the other side are fathers' rights activists who

argue that the current child support system is unjust in that it favors women in most actions that pertain to the child, leaving fathers out.

Child Support

Child support is the transfer of resources to a child living apart from a parent. The most common type of transfer is direct financial payment to the custodial parent on behalf of the child. However, child support can be indirect in the form of medical insurance and care, dental care, child care, or educational support.

The transfer of resources occurs at both the private and public level. Private child support is paid by the noncustodial parent to the custodial parent. The majority of custodial parents have some type of agreement or court award to receive financial and nonfinancial support from the noncustodial parent for their children. In most cases, these are legal agreements established by a court or other governmental entity, such as the local child support agency. Although the majority of custodial parents have legal agreements for child support, about 40 percent of custodial parents do not have such agreements or have informal agreements with the noncustodial parent. According to the U.S. Census Bureau, the three most-often cited reasons for the lack of child support agreements are: (1) custodial parents did not feel the need to go court or to get legal agreements; (2) the other parent provided what he or she could for support; and (3) the other parent could not afford to pay child support.

On the other hand, public child support is paid for by the state on behalf of a child living in poverty in the form of public assistance, such as Temporary Assistance to Needy Families (TANF); food stamps; Medicaid; or Women, Infants, and Children. Roughly, about one-third of all custodial parents receive some form of child support–related assistance from the state. Historically, child support was a means for the state to receive reimbursement from noncustodial fathers for public child support expenditures. In the case of public child support, it is the government and not the custodial parent who is the direct beneficiary of the noncustodial parent's financial payment. In fact, some scholars and fathers' rights activists suggest that it is the reimbursement of public child support that has stimulated interest in stricter child support enforcement.

The Transformation of Child Support in the United States

Child support in its present form has not always existed. Initially child support was considered a civil matter. Since the arrival of settlers in America, child support has existed in some form, with parental responsibility at the heart of collections of aid. Child support has its foundations in the Elizabethan Poor Laws of 1601, sometimes referred to as the English Poor Laws. The English Poor Laws were a system of relief to the poor that was financed and administered at the local level (parishes). The poor were divided into three groups: able-bodied adults, children, and the elderly or non–able-bodied. The overseers of the poor relief system were to put the able-bodied to work, to give

apprenticeships to poor children, and to provide "competent sums of money" to relieve the non–able-bodied. It is this system of assistance to the needy that British settlers brought with them to America.

Child Support in Colonial America

Colonial child support had a slow start. In colonial America, when a couple married, the wife's identity merged with that of her husband. Women did not have the right to hold property, so the husband controlled and managed all property. In return, the husband was obligated to provide for his wife and children. Fathers had a *nonenforceable* duty to support their children. Under the Poor Laws, child support was considered a civil matter. Although desertion was rare, when a man did desert his family, the local community would provide for the mother and child to prevent destitution. In return, local communities would attempt to recover from the father monies spent in support of the mother and child. The money collected from the father was put back into the poor relief system's reserves. However, near the end of the 18th century, as the population increased, there was an accompanying increase in the numbers of individuals needing assistance, which eventually caused a breakdown of the colonial poor relief system.

Child Support Enforcement and the Making of the Deadbeat Dad

The revolutionary changes brought about by the industrialization and urbanization of the 19th century encouraged courts to strengthen the child support system. During this period, divorce and child custody laws were transformed. For instance, child custody laws that had previously favored the fathers in divorce began to favor the mother, increasingly granting custody of the child to mothers. Therefore, when divorce and desertion rates increased, many mothers and their children became dependent on the state for subsistence. In response to this rise in the utilization of and dependency on public resources, states began to make child support a criminal matter by establishing a legally *enforceable* child support duty. State legislators passed desertion and nonsupport statutes that criminalized and punished fathers for their refusal to support their child, especially if the mother and child were recipients of public child support. Fathers who failed to comply with child support were either fined or imprisoned.

Despite states' efforts to improve child support enforcement and to reduce public child support expenditures, a sizable number of fathers and husbands fled the state to avoid their child support obligations, leaving a host of mothers and children destitute and dependent on public child support services. In the mid-20th century, the Uniform Reciprocal Enforcement of Support Act implemented federal guidelines that made fathers who moved from state to state to avoid child support still responsible for their children through both civil and criminal enforcement. Yet these guidelines caused confusion between states regarding the jurisdiction of child support; hence, some fathers could have multiple child support orders. Throughout the remainder of the 20th century,

state and federal child support enforcement programs continued to address interstate inconsistencies that provided irresponsible parents with a means of avoiding their child support obligations.

The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, known to most Americans as welfare reform, emphasized parental responsibility for the financial support of their children as well as implemented more aggressive enforcement techniques and additional provisions that unified state collection efforts. For instance, to reduce delay in establishing wage withholding for parents who are delinquent in their child support payments, PRWORA requires employers to report all new hires to child support enforcement authorities. As a result, the National Directory of New Hires, a centralized electronic system, was developed to match all employees with parents who owe child support and are listed in the federal case registry. In fiscal year 1998, the National Directory of New Hires located 1.2 million parents who were delinquent in their child support payments; in fiscal year 1999, the directory identified an additional 2.8 million delinquent parents.

The most recent child support enforcement effort focused on curtailing deadbeat parents is the creation of the Deadbeat Parents Punishment Act (DPPA), which makes it a federal offense for a noncustodial parent to willfully fail to pay a past-due child support obligation, with respect to a child residing in another state. Under the DPPA, if the obligation remains unpaid for longer than one year or is greater than $5,000, then a misdemeanor charge may be considered. Behaviors that constitute a felony offense are: (1) traveling in interstate or foreign commerce with the intent to evade a

POLITICS AND CHILD SUPPORT

The issue of child support is just one of many topics related to the changing family. Scholars and politicians continually debate whether the traditional family is in decline. On one side of the debate are those who think the family is in decline. Proponents of this perspective hail the traditional family—that is, a breadwinner husband, a stay-at-home wife and mother, and children—as the best environment for children. Along with this perspective come terms such as *family values* or *families first* that are used to affirm and clarify the merits of the two-parent home. Thus, the federal government spends millions of dollars on marriage promotion programs that are mainly aimed at the poor. Some argue that if marriage promotion works, we will witness more stable families and a reduction in government spending on public child support–related services.

On the other side of the debate are those who argue that the family is not in decline but is changing in response to societal shifts. This perspective also contends that it is unlikely that American families will ever return to the traditional family. Therefore, terms such as *family values* and *families first* should be used in relation to all family types. If we accept all families, then more aggressive efforts will be made to support single-parent households and to assist in moving families out of the poverty trap.

support obligation if the obligation has remained unpaid for longer than one year or is greater than $5,000 or (2) willfully failing to pay a support obligation regarding a child residing in another state if the obligation has remained unpaid for longer than two years or is greater than $10,000. Maximum penalties for a misdemeanor are six months incarceration and a $5,000 fine. Maximum penalties for a felony offense are two years and a $250,000 fine.

The past few centuries have seen a noteworthy transformation in the child support system in the United States. Yet there is scholarly and political debate about whether the current system works and, if so, for whom.

Child Advocates

Child advocates argue that the child support system has improved but suggest that more changes are needed to improve the health and well-being of children and to lift families out of poverty. For instance, the number of custodial parents receiving full private child support payments has increased over the last 10 years, from 36.9 percent to 45.3 percent. In contrast, among custodial parents who live below the poverty line, only 35 percent received all the private child support that was due.

In terms of public child support–related services, advocates argue that these services rarely prevent poverty and, in fact, are a poverty trap. Public child support services provide meager, below-poverty-level benefits, reduce benefits when mothers earn more, and take away medical benefits when a mother leaves welfare. A strategy such as this promotes dependency and perpetuates the cycle of poverty.

However, child advocates note that closely related to the poverty trap is the child support enforcement trap. Specifically, advocates are concerned that custodial parents receiving public child support such as TANF are required to assign their right to private child support to the governmental welfare entity before cash assistance can be received. Moreover, custodial parents must pursue child support from the noncustodial parent, which is then diverted to the welfare assistance program instead of the custodial parent. Child support payments that are used to reimburse government public assistance costs deprive many poor children of much of the child support paid on their behalf. Even after the family leaves welfare and is struggling to avoid return, in some circumstances child support collections will go to repay government arrears before going to the family. What's more, child advocates note, if the amount of private child support paid equals or exceeds the public child support assistance, the family is moved off of TANF, the cash assistance part of the program.

Finally, the federal government through the Social Security Administration provides up to $4.1 billion in financial incentives to states that create child support and arrearage orders. Again, child advocates argue that this type of child support enforcement system is a trap that perpetuates the cycle of poverty and is more beneficial for the state and federal government than for children and families.

Fathers' Rights Activists

Overall, fathers' rights activists find that the current child support system is a gender-biased system that discriminates against men. However, these activists' dissatisfaction with the child support system begins prior to the child support order, with the divorce proceedings. Many divorced men argue that awarding sole maternal custody denies a father equal rights. Yet many fathers admit that they do not want the responsibility of caring for their children on a daily basis but do want to continue the parenting role and visit with their children regularly.

A second issue that concerns fathers' rights activists is that mothers are awarded unjust child support payments; that is, more money than is needed to care for the child. Furthermore, fathers seem to resent that they have no control in the manner in which support payments are spent. Even more, fathers who pay child support become angry when visitation with their children is limited, again blaming a gender-biased system for these problems.

Activists also take issue with the term *deadbeat dad.* They contend that the concept of deadbeat dad carries the connotation of an affluent man who fails to meet his parental responsibility to provide for his children. Some activists suggest that the majority of dads who are labeled as deadbeats do not fit this image. In fact, they argue, many fathers just are not financially able to provide for their children, yet the court awards child support payments that he is unable to afford. For instance, activists assert that men characterized as deadbeats are either (1) remarried and the second family is worse off financially than the original family because the father is supporting his biological children and stepchildren; (2) living in poverty, homeless, or incarcerated; (3) fathers who are providing indirect support to the child and custodial parent such as repairing items around the custodial parent's house; (4) fathers who cannot find their children because the mother has moved, but the mother has filed a case with the local child support enforcement entity; (5) fathers with high arrearages in relation to their current economic circumstance; or (6) fathers who are truly child support resistors—that is, deadbeat dads.

Finally, some activists claim that child support enforcement benefits all entities related to the divorce industry. They point out that the divorce and child support industry creates jobs for many. For example, family court judges earn $90,000 to $160,000 per year, and each judge requires a staff, not to mention child support staff, social workers, private collections agencies, and attorneys. In addition, they note the availability of federal funding for the administration of child support enforcement programs under the Social Security Act. Federal funding incentives have led a number of for-profit and privately held corporations to offer services to state and local child support agencies ranging from consultation to payment processing. Thus, fathers' rights activists argue that the current child support system actually tears families apart while benefiting government and child support–related businesses.

See also **Child Abuse; Divorce; Poverty and Public Assistance**

Further Reading

Crowley, Jocelyn, *The Politics of Child Support in America.* New York: Cambridge University Press, 2003.

Duerr, Jill, and Bruce Fuller, eds., *Good Parents or Good Workers? How Policy Shapes Families' Daily Lives.* New York: Palgrave Macmillan, 2005.

Mandel, Deena, *Deadbeat Dads: Subjectivity and Social Construction.* Toronto: University of Toronto Press, 2002.

DESEGREGATION

Erica Frankenberg and Chinh Q. Le

For many, the 50th anniversary of *Brown v. Board of Education* in 2004 provided an opportunity to celebrate the decision as a victory for racial justice and to presume that large-scale racial inequality was an artifact of the past, of little concern to us today. Yet it is clear that segregated or near-segregated schools continue to exist and that school resegregation has been on the rise since the 1980s.

Public school segregation has increased over the past two decades not because we have learned that desegregation failed or because Americans have turned against it. In fact, there is now more information about the benefits of integration than ever before, and public support for integrated education remains high, particularly among those who have personal experience with desegregated schools. Rather, resegregation has been primarily a result of the changing legal and political landscape, which in recent years has severely limited what school districts must—or may—do to promote racial integration in their schools.

Why Desegregation?

Why should we care about segregation? Public school segregation can have a powerfully negative impact on students, an impact that prompted the Supreme Court to declare segregated schools unconstitutional in 1954. One of the common misconceptions about desegregation is that it is simply about seating black students next to white students in a classroom. If skin color were not systematically and inextricably linked to other forms of inequality, perhaps segregation would have less educational or legal significance. But when we talk about schools that are segregated by race, we are also usually talking about schools that are segregated along other dimensions as well, including poverty and English language learner status.

Racial segregation is highly correlated with the concentration of student poverty, and the differences by race and ethnicity in students' exposure to poverty are striking. Nationally, about half of all black and Latino students attend schools in which three-quarters or

more students are poor, while only 5 percent of white students attend such schools. No fewer than 80 percent of students in schools of extreme poverty are black or Latino. As a result, minority students in these segregated schools are isolated not only from white students but from schools with students from middle-class families, and exposure to students with middle-class backgrounds is a predictor of academic success. Further, Latino English language learner students are even more isolated from whites than their native-speaking Latino peers and, as a result, have little exposure to native English speakers who could aid their acquisition of English.

Racially isolated minority schools are also often vastly unequal to schools with higher percentages of white students in terms of other tangible resources, such as qualified, experienced teachers and college preparatory curriculum, as well as intangible resources, such as lower teacher turnover and more college-bound peers—all of which are associated with higher educational outcomes. Social science research, then, confirms that the central premise of *Brown* remains true: Racially minority segregated schools offer students an inferior education, which is likely to harm their future life opportunities, such as graduation from high school and college. While a handful of successfully segregated minority schools certainly exist across the nation, these schools represent the exception to the general trend and are typically places with stable, committed leadership and faculty that are difficult to replicate on a large scale.

Desegregation has offered an opportunity to study how interracial schools can affect the education of students. Research generally concludes that integrated schools have important benefits for students who attend these schools and for the society in which these students will one day be citizens and workers. While early studies of the effects of desegregation focused on its impact on minority students, more recent research has revealed that white students, too, benefit from racial integration. Of course, these benefits depend on how desegregation is structured and implemented within diverse schools.

Over 50 years ago, Harvard University psychologist Gordon Allport suggested that one of the essential conditions to reducing prejudice was that people needed to be in contact with one another. Research in racially integrated schools confirms that, by allowing for students of different races and ethnicities to be in contact with one another, students can develop improved cross-racial understanding and experience a reduction of racial prejudice and bias.

Additionally, black and Latino students in desegregated schools have higher achievement than their peers in segregated schools, while the achievement of white students in racially diverse but majority white schools remains unaffected. Some evidence also suggests that diverse classrooms can improve the critical thinking skills of all students.

Benefits from such environments extend beyond the time spent in schools to improved life opportunities. Students in integrated schools are more likely to graduate from high school and go on to college than their segregated peers, meaning that integrated schools result in a more highly skilled workforce. These students are also connected to

social networks that give them information about and access to competitive colleges and higher-status jobs. Perhaps because of this access or the fact that students who attend integrated schools tend to be more likely to attain graduate degrees, labor market studies show that African Americans who attend integrated schools have higher salaries than their peers from segregated schools. Finally, students who attend racially diverse schools are more likely to be civically engaged after graduation and to feel comfortable working in diverse settings.

There are important benefits for communities with racially diverse schools. For example, students who graduate from integrated schools will have experience and will be adept working with people of other racial and ethnic backgrounds, an important skill for the demands of the workforce in the global economy. Research also indicates that communities with extensive school desegregation have experienced declines in residential integration. Further, desegregation that encompasses most of a region can stem white flight. Communities with integrated schools tend to experience higher levels of parental involvement in and support for the schools.

It is no wonder, then, that over the years, many school districts have come to realize the value of racial and ethnic diversity and its important influence on educating future citizens. A number of these school districts, as a result, have voluntarily enacted policies and student assignment methods designed to promote racial integration in their schools. In other words, more and more school districts are trying to create diverse learning environments not out of legal obligation but on their own accord as an essential part of their core educational mission. They do so in recognition of the critical role schools play in fostering racial and ethnic harmony in an increasingly heterogeneous society and of the significance of an integrated school experience in shaping students' worldviews. Yet even these efforts may be imperiled.

The Development of School Desegregation Law

Most scholars and laypersons alike consider *Brown v. Board of Education* the most famous U.S. Supreme Court ruling in U.S. history. That landmark 1954 decision was the culmination of decades of civil rights litigation and strategizing to overturn the deeply entrenched doctrine from *Plessy v. Ferguson* (1896) of "separate but equal," which had applied to 17 Southern states where segregated schools were required. *Brown* held for the first time that racially segregated public schools violate the equal protection guarantees of the Fourteenth Amendment of the U.S. Constitution.

Although an enormous moral victory for civil rights advocates—indeed for the entire nation—*Brown* itself did not require the immediate elimination of segregation in the nation's public schools. In fact, one year later, in a follow-up decision popularly known as *Brown II,* the Supreme Court allowed racially segregated school systems to move forward in dismantling their segregative practices "with all deliberate speed"—an infamous phrase that, for many years, meant without any speed or urgency at all. Further, *Brown II* placed

the duty to supervise school desegregation squarely on local federal district courts and then provided these courts little guidance.

Thus, despite the efforts of countless black communities across the nation demanding immediate relief in the wake of the *Brown* decision—often at the risk of grave danger and violence, and mostly in the segregated South, where resistance was greatest—a full decade passed with virtually no progress in desegregating schools. By 1963, when President John F. Kennedy asked Congress to pass legislation prohibiting racial discrimination in all programs receiving federal aid (including schools), well over 98 percent of Southern black students were still attending segregated schools.

A social and cultural revolution was sweeping the country during the civil rights era, however, and, by the mid-1960s and early 1970s, school desegregation too began to take hold. Congress enacted Kennedy's proposed legislation as the Civil Rights Act of 1964, which empowered the Department of Justice to initiate desegregation lawsuits independent of private plaintiffs. The act also authorized the Department of Health, Education, and Welfare to deny federal funds to segregating school districts. With these new governmental tools and allies, civil rights attorneys used the power of America's courts and television sets against recalcitrant school districts that refused to comply with the law.

During these critical years, the Supreme Court, also frustrated by the lack of progress in school desegregation, issued a number of important decisions that lent valuable support and legitimacy to the cause. For instance, in *Green v. County School Board of New Kent County* (1968), the Court expressly defined what desegregation required: the elimination of all traces of a school system's prior segregation in every facet of school operations—from student, faculty, and staff assignment to extracurricular activities, facilities, and transportation.

Three years later, the Supreme Court ruled unanimously in *Swann v. Charlotte-Mecklenburg Board of Education* (1971) that lower courts supervising the desegregation of individual school districts could order the use of transportation, or busing, to achieve desegregated student assignments. In so doing, it rejected the argument that formerly dual school systems had discharged their desegregation duties by assigning students to segregated schools that happened to correspond with segregated neighborhoods.

Shortly thereafter, the Supreme Court decided *Keyes v. School District No. 1* (1973), a case originating in Denver, Colorado, that extended school desegregation obligations to systems outside the South that had employed discriminatory policies. The *Keyes* case was also the first to order desegregation for Latino students. Federal district courts took guidance from these and other Supreme Court decisions as they ordered desegregation plans unique to the communities for which they were responsible. In response to these decisions, the federal judiciary began more actively issuing detailed desegregation orders and then monitoring the school districts' progress, or lack thereof, on a regular basis. Segregation was on the run.

Judicial Retrenchment

By the mid-1970s, significant changes in the Supreme Court's composition rendered its reputation as a champion of civil rights relatively short-lived. In perhaps the most significant case from this latter era, *Milliken v. Bradley* (1974), the Court dealt a serious blow to school desegregation by concluding that lower courts could not order interdistrict desegregation remedies that encompass urban as well as suburban school districts without first showing that the suburban district or the state was liable for the segregation across district boundaries. The practical impact of the decision was the establishment of a bright line between city and suburban school systems beyond which the courts could not traverse in designing their desegregation plans. Whites who for decades had tried to flee school desegregation finally had a place to go where they could avoid it.

Just one year prior to *Milliken,* the Supreme Court had decided a case, *San Antonio Independent School District v. Rodriguez* (1973), that seriously undermined a parallel strategy of the educational equity movement. The Court refused to strike down a public school financing scheme that resulted in significantly lower expenditures for poor and minority children who lived in school districts with lower tax property bases in comparison to their more affluent, white neighbors who lived in the neighboring district. In so doing, the Court foreclosed an important argument that civil rights lawyers had tried to advance in both school funding and segregation cases: that public education was a fundamental right under the Constitution, which must be available on an equal basis. With this legal avenue shut down by *Rodriguez,* and with interdistrict remedies effectively eliminated by *Milliken,* the Supreme Court's brief, forward charge on school desegregation law had officially come to a screeching halt.

Soon the executive branch of government, which had been fairly aggressive in litigation and enforcement of school desegregation cases, followed the increasingly more conservative federal courts. In the 1980s, the Reagan administration adopted a new philosophy that focused on school choice—rather than on the firm insistence of compliance with court orders requiring mandatory student assignments—to accomplish school desegregation. As a result, scores of school districts abandoned busing as a remedy and began more actively employing strategies and tools such as magnet schools and "controlled-choice plans" as the primary means of advancing desegregation. In general, the government's focus during this era turned away from educational equity and toward other issues—namely, an emphasis on standards-based accountability to improve student achievement.

The 1990s ushered in another phase of judicial retreat from school desegregation. Between 1991 and 1995, the Supreme Court handed down three important decisions: *Oklahoma City Board of Education v. Dowell* (1991), *Freeman v. Pitts* (1992), and *Missouri v. Jenkins* (1995). Taken together, these cases essentially invited school districts to initiate proceedings to bring their desegregation obligations to an end. They permitted federal district courts overseeing desegregation plans to declare a school system

"unitary" if they determined that the system had done all that was feasible to eliminate the effects of past racial discrimination. In contrast to earlier decisions, now, according to the Supreme Court, a good faith effort to desegregate along with reasonable compliance with prior desegregation orders for a decent period of time were considered sufficient for a school district to achieve unitary status and thus have its desegregation orders permanently dissolved—even if severe racial isolation or other racial disparities remained. Advocates of school desegregation view these changes as a significant dilution of the desegregation obligations the Supreme Court had placed on school districts in the previous decades.

In the years since that trilogy of cases was decided, a large number of school systems have been declared unitary. In some instances, the school district itself sought to end federal court supervision, arguing it had met its constitutional obligations. In others, parents opposed to desegregation led the attack to relieve the school district of any continuing legal duties to desegregate, leaving the district in the awkward position of having to defend the kinds of policies that it had, ironically, resisted implementing in prior decades. Recently, in fact, a handful of federal courts have declared districts unitary even when the school district itself argued that its desegregation policies were still necessary to remedy past discrimination.

Once a school district has been declared unitary, it is no longer under a legal duty to continue any of the desegregation efforts that it had undertaken in the decades when it was under court order. The school district remains, of course, under a broad constitutional obligation—as do all districts—to avoid taking actions that intentionally create racially segregated and unequal schools. However, courts presume that the school district's actions are innocent and legal, even if they produce racially disparate results, unless there is evidence of *intentional* discrimination. The past history of segregation and desegregation is completely wiped away in the eyes of the law. These fully discretionary, "innocent and legal" policies in many instances have contributed to a disturbing phenomenon of racial resegregation in public schools, which are more racially separate now than at any point in the past two decades.

Trends in Desegregation and Resegregation

As a result of the courts' guidance, there were dramatic gains in desegregation for black students in the South, a region with the most black students and the most integrated region of the country by the late 1960s due to court-ordered desegregation and federal enforcement of desegregation plans. Desegregation of black students remained stable for several decades; by 1988, 43.5 percent of Southern black students were in majority white schools. During the 1990s, however, the proportion of black students in majority white schools in the region steadily declined as desegregation plans were dismantled. In 2003, only 29 percent of Southern black students were in majority white schools, lower than any year since 1968.

When there was a concerted effort to desegregate black and white students in the South during the mid- to late-1960s, there was major progress, demonstrating that desegregation can and has succeeded. We are experiencing a period of steady decline in desegregation since the late 1980s, and much of the success that led to several decades of desegregated schooling for millions of students in the South is being undone. Nevertheless, black and white students in the South attend schools that are considerably more integrated than before the time of *Brown.*

The judicial changes discussed above have had a major impact on the desegregation of schools at a time of racial transformation of the nation's public school enrollment. Since the end of the civil rights era, the racial composition of our nation's public school students has changed dramatically. The United States was once overwhelmingly white, but that is no longer the case. Minority students now comprise more than 40 percent of all U.S. public school students, nearly twice their share of students during the 1960s.

Not only are there more minority students than ever before, but the minority population is also more diverse than it was during the civil rights era, when most nonwhite students were black. Black and Latino students now comprise more than a third of all students in public schools. The most rapidly growing racial/ethnic group is Latinos, whose numbers almost quadrupled from 1968 to 2000 to 7.7 million students. Asian enrollment, like that of Latinos, is also increasing. Meanwhile, by 2003, whites comprised only 58 percent of the public school enrollment. There were 7 million fewer white public school students at the beginning of the 21st century than there were at the end of the 1960s. As a result of this growing diversity, nearly 9 million students in 2003 attended schools with at least three racial groups of students.

U.S. public schools are more than two decades into a period of rapid resegregation. The desegregation of black students has now declined to levels not seen in three decades. Latinos, by contrast, have never experienced a time of increased integration and today are the most segregated minority group in U.S. schools.

Remarkably, almost 2.4 million students attend schools that are 99–100 percent minority, including almost one in six of black students and one in nine Latino students. Nearly 40 percent of both black and Latino students attend intensely segregated schools (90–100 percent of students are nonwhite); yet less than 1 percent of white students attend such schools. Nearly three-fourths of black and Latino students attend predominantly minority schools.

Whites are the most racially isolated group of students in the United States. In a perfectly integrated system of schools, the racial composition of every school would mirror that of the overall U.S. enrollment. The typical white public school student, however, attends a school that is nearly 80 percent white, which is much higher than the white percentage of the overall public school enrollment (58 percent). This means that white students, on average, attend schools in which only one in five students are of another race, which, conversely, reduces the opportunities for students of other races to

be in schools with white students. Schools with high percentages of white students are also likely to have overwhelmingly white faculties, meaning that such schools have few people of color.

Black and Latino students are also extremely isolated from students of other races, and they are particularly isolated from whites. Blacks and Latinos attend schools where two-thirds of students are also black and Latino, and over half of the students in their schools are students of their same race. Despite earlier progress in desegregation, the percentage of white students who attend schools with black students, another measure of school desegregation, has been declining since 1988. Asians are the most desegregated of all students; three-fourths of students in their schools are from other racial and ethnic groups, and only a small percentage of Asian students are in segregated minority schools.

The resegregation of blacks and Latinos is a trend seen in almost every large school district since the mid-1980s. One reason is that the public school districts in many of the nation's largest cities, which educate one-tenth of all public school students in the 26 largest districts, contain few white students—without which even the best designed desegregation plans cannot create substantial desegregation. While the largest urban districts (enrollment greater than 60,000) enroll over one-fifth of all black and Latino students, less than 1 in 40 white students attend these central city schools.

Minority students in suburban districts generally attend schools with more white students than their counterparts in central city districts, although there is substantial variation within the largest suburban districts. In over half of the suburban districts with more than 60,000 students, the typical black and Latino student attends schools that, on average, have a white majority. However, black and Latino students in these districts are more segregated from whites than was the case in the mid-1980s. In some large suburban districts, there has been drastic racial change in a short time span, and these districts are now predominantly minority like the urban districts discussed above. Countywide districts, or districts that encompass both city and suburban areas, have often been able to create stable desegregation. In rural districts, there is generally less segregation since there are fewer schools for students to enroll in, although, in some rural areas, private schools disproportionately enroll white students, while public schools remain overwhelmingly minority.

Current Status of the Law

In recent years, a number of school districts that have been released from their formal, constitutional desegregation obligations—as well as some that had never had any legal duty to desegregate in the first place—have adopted voluntary measures to promote integration in their schools. These voluntary school integration measures, in other words, are designed not by courts to be imposed on school districts, with the goal of curing historical, illegal segregation, but rather by the districts themselves, often with the support

of and input from parents, students, and others in the community. They are future-oriented and are intended to assist the school districts realize *Brown*'s promise and vision of equal opportunity and high-quality integrated public education for all.

Odd as it may seem, however, it may turn out that a unitary school district's voluntary consideration of race for the laudable goal of stemming resegregation and promoting integration is illegal. Despite the success and popularity of well-designed voluntary school integration plans, opponents of desegregation in a handful of communities have sued their school systems for adopting them, alleging that such efforts violate the same constitutional equal protection guarantees that outlawed segregated schools 50 years ago in *Brown.* Indeed, in June 2007, the U.S. Supreme Court issued a much-anticipated and sharply divided ruling in two cases challenging voluntary integration plans in Seattle and Louisville. The court struck down aspects of the student assignment plans because they were not sufficiently tailored to achieve those goals. But a majority of justices left the window open for school districts to take race-conscious measures to promote diversity.

Even though it dramatically changed the landscape of school integration, this Supreme Court decision did not provide a clear set of rules and principles for school districts, creating some confusion about what can be done to promote integration. How communities and school districts will react to the ruling, and whether they choose to forge ahead with new ways to fulfill *Brown*'s promise of equal, integrated public education, remain open questions.

See also **Charter Schools; Government Role in Schooling; School Choice; Social Justice (vol. 2)**

Further Reading

Boger, John Charles, and Gary Orfield, eds., *School Resegregation: Must the South Turn Back?* Chapel Hill: University of North Carolina Press, 2004.

Clotfelter, Charles T., *After Brown: The Rise and Retreat of School Desegregation.* Princeton, NJ: Princeton University Press, 2006.

Dunn, Joshua M., and Martin R. West, eds., *From Schoolhouse to Courthouse: The Judiciary's Role in American Education.* Washington, DC: Brookings Institution Press, 2009.

Frankenberg, Erica, and Gary Orfield, eds., *Lessons in Integration: Realizing the Promise of Racial Diversity in America's Schools.* Charlottesville: University of Virginia Press, 2007.

Kluger, Richard, *Simple Justice: The History of* Brown v. Board of Education *and Black America's Struggle for Equality,* rev. ed. New York: Knopf, 2004.

NAACP Legal Defense Fund. Statement from the NAACP Legal Defense Fund on the Supreme Court's Rulings in Seattle and Louisville School Cases. June 28, 2007. http://www.naacp/df.org/content.aspx?article=1181

Orfield, Gary, and Chungmei Lee, *Racial Transformation and the Changing Nature of Segregation.* Cambridge, MA: Civil Rights Project at Harvard University, 2006.

Smrekar, Claire E., and Ellen B. Goldring, eds., *From the Courtroom to the Classroom: The Shifting Landscape of School Desegregation.* Cambridge, MA: Harvard Education Press, 2009.

Wells, Amy Stuart, Jennifer Jellison Holme, Anita Tijerina Revilla, and Awo Korantemaa Atanda, *Both Sides Now: The Story of School Desegregation's Graduates.* Berkeley: University of California Press, 2009.

DIVORCE

Kimberly P. Brackett and Donald Woolley

Divorce can, with some justification, be viewed as either a problem, a symptom, or a solution. Which of these is or should be the prevailing view depends on who is looking at the subject. Different stakeholders are concerned with the quality of family life and the effects that divorce might have on individuals and the culture as a whole. Among the groups with a vested interest in divorce are politicians, religious groups, counselors, educators, and families themselves.

Persons viewing divorce as a problem tend to focus on statistics indicating a high likelihood of divorces for first marriages and direct much of their concern toward the effects of postdivorce circumstances on children. These stakeholders have been very successful at getting their message to a wide audience. Among those viewing divorce as a problem are clinical psychologist Judith Wallerstein, James Dobson of Focus on the Family, and the Institute for American Values.

Persons who indicate that divorce is a symptom, express the sentiment that modern society is too quick to seek easy solutions to problems and suggest that couples' expectations of marriage are too idealistic. Additionally, those who see divorce as a symptom of a larger problem argue that the moral standards and values of society as a whole are in decline. They also tend to focus on individualism, secularization, and instant gratification as responsible for the increases in divorce. Advocates for this approach include the Institute for American Values, Maggie Gallagher, and Barbara Dafoe Whitehead.

Persons who emphasize the solution elements of divorce often point to decreases in violence and anger between the former partners as the biggest benefit to divorce. Likewise they would suggest that divorce is a solution for persons who entered a marriage unwisely or who were unprepared to assume the responsibilities of a lifetime commitment. Divorce is seen as a solution when the environment at home is one of constant tension and anger. Persons coming from this perspective tend to emphasize constructing a meaningful life after the divorce for both the couple and any children and include Constance Ahrons, the American Academy of Matrimonial Lawyers, and Mavis Hetherington.

Brief History of Divorce

It seems that persons of all recent societies place value on a marriagelike or lasting union between a man and woman. As a result, most societies historically and presently have

frowned upon the ending of such unions and have generally put barriers in the way of dissolving the relationships, although surviving documents indicate that divorces occurred at least as far in the past as ancient Mesopotamia. While the process is formal and legal in the United States and other westernized societies, at other historic periods and places the mechanism has been quite different. Ancient Greeks were unlikely to place a high premium on marriages for other than the legitimating of heirs, and divorce was available provided the reasons a person was requesting a divorce were approved by a governmental official. In the later years of the Roman Empire, a couple could simply agree to divorce and it would be done. In other societies, the husband was the only party who could petition for and receive a divorce.

For the most part, the widespread acceptance of Christianity in the Middle Ages served to decrease the availability of divorce and to enact stringent limitations on the rare instances when it would be permitted. This pattern reflects the fact that marriage at the time was a religious sacrament and under the control of the Church rather than the civil authority. Annulment was the more available path to marital dissolution. In an annulment granted by the Church, the marriage was declared null, as if it had never occurred. This stance regarding divorce remains a hallmark of Roman Catholicism. Even today, devout Catholics and clergy chastise Catholic lawyers who facilitate divorce proceedings. Annulment is also a legal term that is used when a condition existed prior to the marriage that would have prevented the marriage from being legally permitted or recognized. Thus, in the eyes of the law, the marriage never existed.

Divorce has always been available in some capacity in the United States, although the ease with which one could attain divorce and the likelihood of social rejection for doing so has varied over time. The United States has a more liberal history of divorce than does Great Britain and other Western European countries, despite the reliance on English Common Law as the basis for U.S. civil authority. The first recorded divorce in what is now the United States was granted in the Plymouth Colony in 1639 to a woman whose husband had committed bigamy (was married to two women simultaneously). Divorces were rare, however, in the colonial period. This is likely due to the influence of religious beliefs, but also to the economic necessity of partners working together to survive the sometimes harsh conditions of colonial life. A wife was sometimes referred to as a "helpmeet" in colonial literature, reinforcing the role that she assumed in the success of the farm or family business.

While the United States was more liberal than many European countries regarding divorce, grounds for divorce had to be established before a divorce would be permitted. Traditional grounds for divorce included adultery, cruelty, nonsupport, desertion, and incarceration. It was not until 1970 that any state statutes permitted divorce simply because the partners were incompatible. The bold move by California of instituting the first no-fault divorce laws paved the way for partners to divorce for other than traditional grounds. By 1985, when South Dakota became the last

state to permit no-fault divorce, all states had some provisions for these divorces, although a few states (such as New York) required a mandatory waiting period before such a divorce could occur. No-fault divorce meant that neither partner had committed a crime against the other; thus, the traditional grounds for divorce had not been met. Under no-fault divorce, couples agreed that they could no longer be married and would like to have their legal marital contract dissolved.

Divorce Statistics

Divorce is measured by using several different statistics. One of the most widely used is the crude divorce rate. This tells the number of divorces in a given year per 1,000 population. This rate was 4.2 for the year 1998. This statistic makes divorce look fairly uncommon and is not very useful because it includes all persons in society, whether married or not. Another measure of divorce, which academics feel is more accurate, is known as the refined divorce rate. It considers the number of divorces in a given year divided by the number of married women in the population. By focusing on married couples (women), it includes only those persons who are eligible to divorce. In the United States for the year 2004, the refined divorce rate was 17.7. This statistic allows for more comparisons between countries and periods to determine meaningful differences in divorce.

A statistic often quoted in the discussions of divorce is that 50 percent of marriages will end in divorce. This statistic is rather misleading, if not wholly inaccurate, because it is very difficult to predict what will happen over the duration of a marriage. In an average year in the United States, there are about 2.4 million marriages and 1.2 million divorces. It is from these data that the 50 percent figure is derived. However, experts who take into account the factors that lead to divorce for given social groups and historical eras put the likelihood of marriages beginning today and subsequently ending in divorce at around 40 percent.

For women who are college educated and have family incomes over $30,000, the likelihood of divorce decreases to around 25 percent. Race and ethnicity play a part in the likelihood of getting a divorce as well. After 10 years of marriage, 32 percent of non-Hispanic white women's first marriages end in divorce, compared with 34 percent of Hispanic women's first marriages, approximately 50 percent of black women's first marriages, and 20 percent of Asian women's first marriages. Current dissolution rates for first marriages indicate that approximately 20 percent of first marriages end within five years.

For the past 100 years, there has been a generally upward trend in divorce in the United States. A slight decrease in divorce occurred during the early years of the 1930s. The economic troubles of the Great Depression likely influenced the divorce rate, but economic recessions since that time have not showed the same pattern regarding divorce. While divorce declined in the 1930s, it spiked dramatically in the second half of the 1940s. This change has been attributed to the effects of World War II. It seems reasonable that some partners found others during the time they were apart, women

discovered independence through their work in the war effort, or persons were changed by the separation so that they were no longer compatible. Another probable explanation for the spike was that marriages contracted hastily before or during the war were no longer appealing to the partners when the war was over.

Despite the changes brought about in the era immediately following World War II, the time of most rapid increase in divorce was from the early 1960s to 1980, when the divorce rate more than doubled. Factors that have been proposed to account for the increase in divorce include the second wave of feminism (also known as the modern women's movement), an increase in women attending college and perceiving options outside of married life, increases in the accessibility and effectiveness of birth control, increases in opportunities for cohabitation (living together without being married), and the introduction of no-fault divorce statutes. During the last 20 years, the divorce rate has declined from its all-time high but continues to be high when compared with the rates of divorce in other countries. Among the factors related to the recent decrease in divorce is that persons are waiting until later to marry for the first time. Early marriages, particularly among those younger than age 20, have a much higher chance of ending in divorce.

Divorce as Problem

While divorce rates in the United States have been stable or declining for 20 years, Americans express an overwhelming anxiety about the state of marriage. The rate of divorce peaked around 1980, but persons from all across the political spectrum propose that divorce is a serious problem in the United States today. Persons who see divorce as a problem come from the perspective that current divorce rates are unnaturally high and that society should work to reduce them. There is a long history stemming from religious prohibitions and middle-class morality suggesting that divorce is a problem.

Divorce is defined as a problem because of the trauma of the breakup as well as the aftereffects for both the partners who divorce and any children that are involved. Divorce is a problem for couples through both psychological and financial costs. Divorce is seen by many, including the divorcing partners, as a failure of the couple. They experience guilt, loss of self-esteem, and anger. Divorced people are more likely to commit suicide than are married people.

Additionally, divorce has financial consequences for couples. Many times they sell their jointly held assets to divide the results equally. Because men provide, on average, more than 60 percent of household income, women may face a difficult decline in standard of living following divorce. Research suggests that more than 25 percent of divorced women experience at least some time in poverty during the five years following a divorce. Financial concerns are perhaps heightened for women, because they are more likely to receive custody of and be caring for children than are their former husbands. This situation leads to an increase in the numbers of single-parent families in society.

DIVORCE AND CHILDREN

In any given year, about 1 million children discover that their parents are divorcing. Approximately 60 percent of all divorces in the United States involve children. Prior to the 1970s, social scientists believed, as did the general public, that, to have an adult life without added emotional and behavioral problems, a person had to grow up living with his or her biological parents. Early studies seemed to substantiate this, showing that children were scarred by divorce and left with emotional insecurities that continued when they became adults.

Later research has not shown this blanket concept to be true. Research shows that, of the 1 million children of divorce created each year, about 750,000 to 800,000 will suffer no long-term effects as they transition into adulthood. These children are able to function in the same way as those children reared by two parents. Indeed, many of these children may end up better off than they would have if their parents had remained together.

The concept of staying together for the children was born out of the popular belief of the need for two parents in the household. It was thought that a child had to grow up under the direct influence of both parents in order to mature socially and emotionally. Additionally, staying together for the sake of the children was generally considered to be noble and selfless. Parents were expected to sacrifice their personal happiness as a way of protecting their children from the stress of being part of a divorce.

During much of the 20th century in the United States, divorce was stigmatized. It was discouraged by many religions and often viewed as deviant by the public. Because of this atmosphere, the existence of children in a marriage was often used as an excuse to not get a divorce. While on the decline as an idea, staying together for the children was common prior to the 1970s, when divorce became more publicly acceptable.

However, for proper development, a child needs to grow up in a warm and loving environment that may not exist in a household racked by conflict. In these cases, the emotional well-being of children may be better if their parents divorce, at minimum reducing much of the daily discord and possibly even allowing the parents to find happier relationships elsewhere. Staying together for the children may do more harm than good in these situations.

Society's concern with the effects of divorce on children has been a recent phenomenon but a politically useful tack. The presence of children does little to prevent parents from divorcing; it only seems to delay it. Each year, more than 1 million children are involved in the divorce of their parents. For those advocates who see a two-parent home as essential for rearing well-adjusted children, divorce creates additional problems by creating single-parent families.

Divorce decreases the economic and social resources available to children. In terms of economics, children reared by one parent are far more likely to live in poverty than those reared in a two-parent home. There is less disposable income available to splurge

on leisure activities or academic endeavors. Among the potential social consequences of divorce are problems in school, marrying at a young age or never marrying, and abusing alcohol or drugs. Children may experience depression and have less chance to be equally bonded with both parents. Usually it is the father who misses out on the experiences of the child's life. Some older studies of the consequences of divorce for children pointed to divorce as a factor in children's delinquency, truancy, and difficulty with peer relations. Judith Wallerstein (2000) has been particularly vocal about the long-term consequences of divorce for children, including the increased chance that their marriages are more likely to end in divorce than those of children whose parents did not divorce.

Those most likely to view divorce as a problem in society are groups that desire to strengthen marriage as an institution. Marriage is viewed by many as the only acceptable way to live an adult life and the only situation in which to rear children. It is in the context of a nuclear family that children learn the skills that will enable them to be successful and productive members of society. One of the primary concerns of those who oppose divorce is that the option of divorce weakens the institution of marriage. In other words, as more couples divorce, the decision to get a divorce is more acceptable.

Religious organizations such as Focus on the Family have been critical of divorce for not only the negative consequences for adults, children, and society, but for issues of morality as well. Given Christian ideals that marriage is a sacrament before God lasting a lifetime, the only reasonable ending for a marriage is the death of one of the partners. There are, therefore, moral or religious consequences for the violation of holy law by divorcing. One of the most intriguing questions researchers are currently exploring with regard to divorce is how persons who hold some of the most conservative views on divorce have divorce rates higher than the national average. Born-again Christians and Baptists had divorce rates of 27 and 29 percent, respectively, in a study by the religion-motivated Barna Research Group. The conservative religious right opposes divorce, but the Southern Bible belt states have the highest rates. The Catholic Church has been a harsh critic of divorce and lobbied hard to keep divorce options out of countries around the world.

Divorce as Symptom

Divorce is a symptom of the pressure that Americans put on the marital relationship to be all things to the partners. The romantic notion of marriage—that one perfect person will make all of your dreams come true—may be partly responsible for the high rates of divorce. Asking one person to be your everything is putting a lot of faith in and pressure on that individual. While partners are expected to marry for life, they are given very little preparation, other than what they have witnessed in the marriages of their parents and other adults, about how to make a marriage work. Divorce is a symptom of the inadequate preparation for marriage that exists in U.S. society. To combat this, clergy and counselors have developed programs for persons contemplating marriage in attempts to strengthen marriages. One popular program is known by the acronym PREPARE.

Pamela Paul (2002) has suggested that, because cultural notions of marriage have changed very little over time while society has changed a great deal, Americans are particularly likely to find that marriage is not meeting their needs. She suggests that several trends in society today are largely responsible for why marriages are likely to end in divorce: (1) people are living twice as long as they did 100 years ago; (2) the most intensive active parenting takes only about 20 years, so the couple likely has 40 or more years without children in the home; (3) persons are likely to have multiple careers over their lifetimes, so change becomes normative; (4) persons who marry today have grown up in a time in which the stigma of divorce has decreased, and they may have personally experienced divorce as a young person; and (5) the increased likelihood that both spouses are employed frees women to explore nonfamilial roles and to experience economic independence from their husbands. Given these changing circumstances of social life, Paul suggests that it may be unrealistic for spouses chosen while people are in their 20s to be appropriate partners at other life stages.

The Family Research Council has argued that divorce occurs because people are misguided about the purpose of marriage. Marriage is the institution in which children are to be reared, and that is the primary function of marriage. It is not for the fulfillment of the couple but rather for the fulfillment of procreation that marriage is intended to provide.

The phrase "divorce culture" reflects the notion that, in today's world, divorce might be seen as a rather common, even expected, occurrence. The cavalier attitude Americans display toward divorce, argue the critics, makes the harmful effects of divorce seem small. Thus, divorce might be chosen even when a couple has not seriously tried to resolve any difficulties. This choice locates the desire of the individual above the good of the family group. This is particularly criticized when children are involved. Divorce, then, is a sign of selfishness and individuality. Others would argue that it is the no-fault divorce provisions that make divorce quick and easy and thus permit Americans to have a selfish attitude toward marriage. If no-fault divorces were not an option and couples had to go through the court system to end their marriages, they would work harder to keep them together and resolve the difficulties.

Organizations such as the Institute for American Values and the National Marriage Project routinely suggest that the increases in divorce and continuing high divorce rates are the result of a loosening of the moral code in the United States and an increase in individuality. The freedoms that Americans have to conduct personal relationships today have consequences for the individuals and the whole society. One area of concern is the prevalence of media images that depict divorce positively and marriage negatively. Additionally, a more secular society, one that is less apt to follow all aspects of religious teachings, has been blamed for an increase in divorce. Likewise, they suggest that removing the stigma from divorce has meant there is less social pressure to stay in a marriage.

One of the behaviors related to an increase in divorce and a questioning of morality is cohabitation. Cohabitation, living with a partner in a marriagelike relationship without being married, has increased dramatically in the last 30 years. There are now around 5.5 million households of heterosexual cohabitors in the United States. In some communities, as many as 60 percent of couples marrying in a given year are currently cohabiting at the time they apply for the marriage license. Research suggests that, despite the common rationale for cohabitation—that the couple is testing the relationship for compatibility—persons who cohabit before marriage are more likely to divorce than those who do not live together first.

Divorce as Solution

For partners who do not grow together in terms of interests and expectations, married life can be stifling. Divorce permits couples in unhappy unions to end their relationships and start anew. While ending a marriage is a difficult, even traumatic, life transition, it does permit persons to make meaningful life changes and experience a renewal in their lives. This notion of being renewed after severing ties from an unsatisfactory relationship is particularly likely to be mentioned by women after a divorce. In some communities, a woman's female friends might even throw her a liberation party to celebrate her newly single status.

Despite the potential for some women to experience financial difficulties after divorce, when dealing with their children, divorced women are often calmer and more effective parents than when they were in the conflicted marriage. Women also tend to have decreased tension and fewer bouts of depression when they are single. Clearly for women (and children) who were victims of abuse during a marriage, divorce is a solution to the daily threat to their safety.

Children who experience high levels of conflict or even violence in their families enjoy an increase in well-being after a divorce has occurred. Most children from divorced families, even those without a violent past, live good lives after overcoming some initial difficulties. Staying together for the sake of the children, while a politically provocative idea, does not seem to have the desired outcomes. In fact, Constance Ahrons (1994) has indicated that a good divorce is much better for kids than a bad marriage, because they see a healthier way to interact that validates the feelings of the partners and permits them to strive for greater happiness in their lives. Divorce may even lead to better parenting, because the time with the children is coordinated and special. Partners no longer have to disagree about the problems of the marriage but can work on the most effective way to parent the children that they share. Positive outcomes are particularly likely when parents and children attend special classes on how to build their skills in dealing with family issues.

Persons who view divorce as a solution tend to point to studies that argue that, not only can children be reared successfully in arrangements other than a traditional

two-parent family, but adults can also find fulfillment in situations other than marriage. Those taking this view would not suggest that divorce or its consequences are easy; it is a highly stressful transition. However, it does permit adults a second chance at happiness and permits children to escape from a dysfunctional home life. In fact, Stephanie Coontz (1992) argues that we have made the traditional two-parent family look so good in our nostalgic yearning for the past that even the most functional of families would have difficulty living up to the expectations.

Perhaps it is the unrealistic expectations of married life that push some people to marry in the first place. While there are no overt penalties for singlehood nor current laws in the United States that indicate that one must be married by a certain age, there may be social pressure to demonstrate adult status by marrying. For these persons, marriage may not meet with their expectations, they may have married the wrong person, or they may have married too early. Research consistently shows that persons who are teenagers when they marry have far higher rates of divorce than do persons who wait until they are slightly older to marry. For these persons divorce may be a solution to a decision made when they were not yet mature. Likewise, persons who marry due to a premarital conception have higher rates of divorce than those whose children are conceived after the wedding.

Divorce may be characterized as a problem, symptom, or solution. At the present time, popular conceptions of divorce give more support to the notion of divorce as a problem to be solved. It is a problem of both long-term and short-term consequences. It is a problem of individuals as well as society. It is also a symptom of how much we might value personal relationships. We value them so highly that we want them to be all things to all persons, and we feel betrayed when they are not. Perhaps it is a symptom of the freedoms that U.S. society permits its citizens. Divorce is also a solution for those situations and times in which no other options seem to work or when staying in the marriage might have devastating emotional or physical consequences for the participants.

See also **Child Care; Deadbeat Parents**

Further Reading

Ahrons, Constance, *The Good Divorce: Keeping Your Family Together When Your Marriage Comes Apart.* New York: Harper Collins, 1994.

Ahrons, Constanct, *We're Still Family: What Grown Children Have to Say about Their Parents' Divorce.* New York: Harper Paperbacks, 2005.

Celello, Kristin, *Making Marriage Work: A History of Marriage and Divorce in the United States.* Chapel Hill: University of North Carolina Press, 2009.

Coontz, Stephanie, *The Way We Never Were: American Families and the Nostalgia Trap.* New York: HarperCollins, 1992.

Demo, David, and Mark A. Fine, *Beyond the Average Divorce.* Thousand Oaks, CA: Sage, 2009.

Emery, Robert E., *Marriage, Divorce and Children's Adjustment,* 2d ed. Thousand Oaks, CA: Sage, 1999.

Hetherington, E. Mavis, and John Kelly, *For Better or For Worse: Divorce Reconsidered.* New York: W. W. Norton, 2002.

Karney, Benjamin J., *Families under Stress: An Assessment of Data, Theory, and Research on Marriage and Divorce in the Military.* Santa Monica, CA: Rand Corporation, 2007.

Metz, Tamara, *Untying the Knot: Marriage, the State, and the Case for Divorce.* Princeton, NJ: Princeton University Press, 2010.

Paul, Pamela, *The Starter Marriage and the Future of Matrimony.* New York: Villard, 2002.

Swallow, Wendy, *Breaking Apart: A Memoir of Divorce.* New York: Hyperion, 2001.

Wallerstein, Judith, Julia Lewis, and Sandra Blakeslee, *The Unexpected Legacy of Divorce.* New York: Hyperion, 2000.

DOMESTIC PARTNERSHIPS

Marion C. Willetts

Over the last 25 years, numerous legal options have emerged for same-sex and opposite-sex couples wishing to legitimize their intimate unions in ways other than through heterosexual legal marriage. Four of these options are civil unions, same-sex marriages, reciprocal beneficiaries, and licensed domestic partnerships.

Legal Options

Civil Unions

Four states (Vermont in 2000, Connecticut in 2005, New Jersey in 2007, and New Hampshire in 2008) have implemented *civil union* legislation. In all four states, only same-sex couples are eligible to enter into a civil union; with the exception of sexual orientation, they must also meet the eligibility requirements for legal marriage. At the state level, civil unions are the functional equivalent of legal marriage in that they provide to couples all of the benefits and protections of marriage afforded to spouses. Due to the federal Defense of Marriage Act signed into law by President Bill Clinton in 1996, which defines marriage as consisting of the legal union of one man and one woman, these couples do not enjoy any of the benefits or protections at the federal level afforded to legally married couples. Furthermore, while nonresidents are eligible to form civil unions in these four states, only in New Jersey do they receive any legal acknowledgment, benefits, or protections associated with their unions (Vermont and Connecticut do not grant legal acknowledgment to civil unions contracted elsewhere; nor does any state without civil union legislation).

Legally dissolving a civil union involves the same process as dissolving a marriage: one partner must file for divorce. In Vermont, for example, at least one partner must

DEFENSE OF MARRIAGE ACT (1996)

Passed by the U.S. Congress in 1996, the Defense of Marriage Act (DOMA) defined marriage as existing only between a man and a woman, specifically when in reference to federal laws affecting taxes, pensions, Social Security, and other federal benefits. DOMA also gave the states the individual freedom to refuse to recognize gay marriages performed in other states. This meant that, regardless of where the marriage had been performed, there was a strong likelihood that it would not be recognized at all anywhere in the United States. Because marriages are certified at the state rather than the federal level, this act gave states permission to ignore the common practice of reciprocity with regard to homosexual couples. For heterosexual couples, reciprocity (the recognition that a marriage is legal in other states regardless of the state in which it was performed) still applied. However, this federal legislation did not dampen the spirits of the same-sex marriage proponents. If anything, it likely fueled the fire to a new level of frenzy.

The passing of DOMA likely resulted in the drafting and implementation of a Federal Marriage Amendment (FMA), which first saw activation in Colorado in 2002 and again in 2003. The FMA was an attempt to squash objections that DOMA had overstepped its constitutional authority by allowing states to disregard legal agreements (contracts) that other states had considered valid and binding. Supporters of an FMA felt that this constitutional amendment would clarify any gray areas regarding marriage, defining it solely as a man-woman union, as well as including a clause that stated that no state constitution or other body of law was to be construed as being forced to allow and recognize same-sex marriages. By the early 21st century, nearly four-fifths of all states had already passed laws or amended their own constitutions to ban same-sex marriages from within their borders. The action that had the largest impact on the opposition of same-sex marriage was taken by President George W. Bush in 2004, as he announced his support for a constitutional amendment prohibiting gay marriage. As with the creation and enactment of DOMA, Bush's support of a constitutional ban on gay marriage likely did nothing but temporarily boost his image and fuel the fire for gay rights equality in the marriage arena.

reside in the state for a minimum of six months prior to filing for dissolution, and that partner must reside in Vermont for at least one year prior to the hearing date for final dissolution of the civil union. If a couple that entered into a civil union either relocates to or are residents of another state and they wish to legally dissolve their union, the lack of acknowledgement of civil unions in other states means that a legal divorce is difficult, if not impossible, to obtain. Indeed, two couples who entered into civil unions in Vermont currently are struggling to dissolve their unions in other states (one in Connecticut, initially heard before the court in 2002, and one in Texas, initially heard before the court in 2003). In both cases, decisions about whether the unions may be legally dissolved in these states are yet to be rendered.

Same-Sex Marriage

Another legal option made available to couples living in five states (Connecticut, Iowa, Massachusetts, New Hampshire, and Vermont) and the District of Columbia is *same-sex marriage.* The federal Defense of Marriage Act dictates that states are not required to legally recognize the same-sex marriages contracted in any other state, although most of the states that allow them also recognize them from other states. New Jersey legally translates these marriages, in addition to the legal same-sex marriages contracted in other countries (same-sex marriage was legalized in the Netherlands in 2001, Belgium in 2003, Canada and Spain in 2005, and South Africa in 2006), into civil unions if the couples relocate there and provides to these couples all of the state-level benefits and protections of legal marriage. Similar to civil unions, same-sex marriage in the states in which it exists grants to couples all of the benefits and protections afforded to legally married couples at the state level, but these couples do not enjoy any of the benefits or protections afforded to legally married couples at the federal level as a result of the Defense of Marriage Act.

Reciprocal Beneficiaries

A third legal option, available only in the state of Hawaii, is *reciprocal beneficiaries.* According to Hawaii's Reciprocal Beneficiaries Law, implemented in 1997, same-sex couples, as well as unmarried relatives and friends of heterosexual and homosexual individuals legally barred from marrying each other, are eligible to register with the Hawaii Department of Health as reciprocal beneficiaries. Hawaii's policy is unique because it extends eligibility to those not in an intimate union. The law grants some of the benefits of marriage to reciprocal beneficiaries, including property rights, protection under the state's domestic violence laws, the ability to visit a beneficiary in the hospital and to make medical decisions for him or her, to sue for the wrongful death of a beneficiary, and to inherit property without a will. Because individuals in reciprocal beneficiaries are legally single, dissolving the relationship legally simply involves informing the Hawaii Department of Health of its termination.

Licensed Domestic Partnerships

A fourth legal option is *licensed domestic partnerships.* These partnerships were first instituted in Berkeley, California, in 1984 and were originally intended to grant public acknowledgment to the unions of same-sex couples. Local government officials at that time determined that unmarried opposite-sex couples also needed legal acknowledgment of their unions, particularly with regard to protecting the so-called weaker party in the relationship upon the dissolution of it; thus, eligibility for participation in licensed domestic partnerships was extended to them as well. Since then, a few other states (Nevada, Oregon, and Washington) have implemented domestic partnership ordinances, as have over a dozen counties and more than 50 cities. An analysis of the domestic

SUPPORTERS AND OPPONENTS OF SAME-SEX MARRIAGE

Supporters

Advocacy groups in support of same-sex marriage have utilized the ever-changing social environment to their advantage, ultimately giving support to their position that a just society translates as one that accepts the practice of same-sex marriage as one of simple fairness, full and complete citizenship, and equal rights. While many involved in the battle over same-sex marriage approach it from a religious standpoint, those that are religiously affiliated but do not attack the issue on a negative level, such as the Unitarian Universalist Association, have called for fully legalized same-sex marriage. In 2005, the United Church of Christ (with some 1.3 million estimated adult members) became the first Christian denomination endorsing the right of homosexual marriage, concluding that "in the Gospel we find ground for a definition of marriage and family relationships based on affirmation of the full humanity of each partner, lived out in mutual care and respect for one another" (www.ucc.org). Some churches have not come to grips with a full decision regarding the topic. The Episcopal Church (with 3 million adult members) has not sanctioned full marriage rights, specifically in terms of actually enacting legal documentation. However, in 2003, the leaders of the Episcopal denomination in the United States approved a resolution at their annual convention that states that under the pretenses of "local faith communities operating within the bounds of our common life as they explore and experience the celebration of and blessing of same-sex unions" (Sheridan and Thrall 2003). In a roundabout way, the Episcopal Church has thrown in a pro-vote without necessarily donning a rainbow banner in the middle of the sanctuary.

Stepping back onto the secular side of the pro-argument, the biggest players on this team are advocacy groups. Examples of these groups include the American Civil Liberties Union, the Human Rights Campaign, the National Gay and Lesbian Task Force, as well as numerous others. Their ability to create change through lobbying, campaigning, fundraising, and numerous other tactics depends on a number of factors, specifically environmental conditions and policies favored strongly by the public. However, public policy is not strong enough to stand on its own as a deciding factor. It must be approached from the right angle at the right point in time for the advocacy groups to pull through as effective promoters of change. To obtain substantial legislative change, these groups must start at the ground level and work their way up, persuading everyone in their path to their reasoning of the argument in order to cut a path of agreeable successes from the starting line to the finish. One thing that must be kept in mind when considering the groups advocating same-sex marriage is that they are much smaller in number, poorer in financial resources, and more deeply polarized in political ideology than their opposition counterparts.

Opponents

Like their counterparts who support same-sex marriage, interest groups opposing same-sex marriage have their work cut out for them. With the ever-changing social environment and the turbulent political waters surrounding the issue, the battle has certainly

been a heated one and will likely continue as such. Examples of interest groups in opposition of same-sex marriage include the Family Research Council, Focus on the Family (brought to the headlines of politics by its founder James Dobson), the Christian Coalition (with figures such as Pat Robertson at the helm), and many others. These groups have substantial advantages over the proponents of same-sex marriage in a number of areas. The first is that these groups need only keep things in their favor or keep the status quo. This specifically applies to legislation that these groups do not have to advance. Rather, they must simply block the pro–same-sex marriage groups from advancing their own legislative measures. Their second and perhaps largest advantage is that a large majority of these groups are religiously affiliated; thus, they are interconnected with a number of networks of individuals with various resources readily available for opposition mobilization, ready for attack at any sign of progressive successes. While blocking policy change is a deep advantage for the opposition, as a group, they have not been pleased with their successes in this area. These same groups are also responsible for enacting laws and legislation at various levels that will ultimately define marriage in all finality as being defined as the union of a man and a woman.

An example of one of these groups' arguments was found posted in an essay on the Family Research Council's Web site that specifically states that they oppose same-sex marriage "not because homosexuality is a greater sin than any other. It's not because we want to deprive homosexuals of their fundamental human rights. It's not because we are afraid to be near homosexuals, and it's not because we hate homosexuals. On the contrary, I desire the very best for them. And desiring the best for someone, and acting to bring that about, is the essence of love" (Sprigg 2004). One aspect of same-sex marriage that the opposition has recently chosen to utilize is the prominence, presence, and well-being of the children involved in these proceedings.

partnership records provided by most locales (some do not release this information due to confidentiality concerns) indicates that most licensed couples are in same-sex unions. Several other states grant partial benefits to couples in domestic partnerships.

Domestic partnership ordinances typically define partners as two financially interdependent adults who live together and share an intimate bond but are not related by blood or law. Couples wishing to license their cohabiting unions complete an affidavit attesting that they are not already biologically or legally related to each other or legally married to someone else, that they agree to be mutually responsible for each other's welfare, and that they will notify the local government records office if there is a change in the status of the relationship, either by dissolution or by legal marriage. Along with a fee, the affidavit is then submitted to the local records office or, in some locales, may be notarized to register the partnership. To dissolve a licensed partnership, one partner must inform the office where the partnership was

registered. Within six months after this notification, an individual in most locales may then register another domestic partnership.

As noted, the first state to implement a domestic partnership ordinance was California in 1999; in that state, both same-sex and opposite-sex couples are eligible to become licensed partners, although the age-eligibility requirements differ. Specifically, both partners in a same-sex couple must be at least 18 years of age to become licensed partners. One partner in an opposite-sex couple, however, must be at least 62 years of age and meet eligibility requirements for old-age benefits under the Social Security Act. These differing eligibility requirements were implemented to encourage legal marriage among opposite-sex couples, while also recognizing that remarrying after the death of a spouse imposes financial costs in terms of reductions in Social Security benefits to those remarrying as opposed to remaining single. Upon implementation of the legislation, licensed domestic partners in California received a number of tangible benefits that the legally married enjoyed; since 2005, essentially all state-level rights and responsibilities of marriage have been extended to licensed partners.

In the state of Maine, both opposite- and same-sex couples are eligible to register as licensed domestic partners, with the same age eligibility requirements (both partners must be at least 18 years of age). To become licensed, both partners must be residents of Maine for at least one year. Licensed partners in Maine also enjoy limited benefits, including protection under the state's domestic violence laws, the right to inherit property from a partner without a will, making funeral and burial arrangements for a partner, entitlement to be named the partner's guardian in the event he or she becomes incapacitated, and to make decisions regarding organ or tissue donation for a deceased partner.

At least three of the dozen counties and 5 of the 50-plus cities that have implemented domestic partnership ordinances restrict eligibility to same-sex couples. Furthermore, in at least 13 locales, both partners must be either residents of the city or county or couples must include at least one partner who is an employee of the city or county. Thus, couples throughout the United States may become licensed domestic partners in many locales, although they do not reside there. Their home city or county will not acknowledge their licensed status, however, and they will receive no benefits or protections as a function of being licensed partners. Most locales, however, do not offer any tangible benefits or protections to licensed partners anyway, regardless of where the couple resides. The benefits granted by the handful of counties and cities that do provide them include health insurance coverage for a partner, visitation rights in hospitals and correctional facilities, and bereavement leave.

Current Controversies

Those most concerned with the implementation of policies legitimizing various coupling options are divided along ideological lines to form two competing camps. The pro-marriage camp consists of those promoting legal marriage as the sole form of public

acknowledgement of intimate unions. Individuals and organizations in this camp may be divided further into two classes: one that promotes heterosexual marriage and desires the exclusion of legal recognition of all other types of unions based on religious beliefs (referred to here as the religiously-oriented) and one that fears the institution of marriage, along with its beneficial aspects to men, women, children, and society, are threatened by legally acknowledging other forms of relationships (referred to here as the family decline–oriented). Specifically, those motivated by religious arguments assert that only heterosexual relationships within the context of legal marriage are natural or ordained by God and that recognition of same-sex unions and nonmarital forms of heterosexual unions undermines the inherent value of legal marriage and violates the will of God. They view marriage as much more than simply a civil contract; rather, it is a holy sacrament. Those motivated by concerns over family decline assert that there are tangible and emotional benefits to marriage that accrue only to individuals residing within the context of legal marriage and that all of society benefits from the well-being these individuals enjoy. Those in this class are concerned that legal acknowledgement of other forms of coupling undermines marriage as the so-called gold standard and that couples will be less likely to aspire to marriage as a result, leading to a host of social ills.

The other side involved in this debate, referred to here as the pro-inclusivity camp, advocates for legal recognition of both marital and nonmarital relationships. They assert that legal marriage for many couples is either unavailable or undesirable as an option to legitimizing a union. They argue that other forms of legitimization must be made available to these couples as a civil rights issue. Advocates of inclusivity argue that the well-being of men, women, children, and society would be advanced by the implementation of policies promoting their choices and protecting their interests, whereas denying them either the opportunity to legitimize their unions or forcing them into an all-or-nothing situation, where they must either marry and receive benefits and protections or not marry and receive no benefits or protections, harms the individuals in these families as well as the well-being of society.

The success of both the pro-marriage and the pro-inclusivity camps in promoting their views is mixed. As noted, an increasing number of locales are implementing legislation that grants acknowledgement to various forms of coupling. At the same time, however, an increasing number of states have implemented their own Defense of Marriage Acts or amended their state constitutions to define marriage as consisting of the legal union of one man and one woman. Currently, only 10 states do not have a version of this act or a substantively similar constitutional amendment.

Clearly, the most controversial issue surrounding the implementation of policies legitimizing various methods of coupling concerns public acknowledgment of same-sex unions. States in particular have struggled with determining what type of acknowledgment to provide, if any, and what terminology should be employed to grant this acknowledgment (e.g., civil unions, licensed partnerships). As noted, only four states have

made legal marriage available to resident same-sex couples. Other states have attempted to strike a compromise in this debate by implementing similar legislation but referring to it as something other than legal marriage. The result of the compromise is that parties on both sides of the debate are left dissatisfied. Pro-marriage advocates are alarmed that the unions of same-sex couples are receiving any acknowledgement all; for many same-sex couples and their advocates, however, anything short of legal marriage is simply not enough, as marriage enjoys a cultural aura and subsequent social support that is bolstered by history and religion and that does not exist in any other form of coupling.

It is important to note that even homosexual individuals and organizations promoting their civil rights and well-being are divided on the issue of whether marriage should be extended legally to same-sex couples. Some argue for equal legal treatment between same-sex and opposite-sex couples, whereas others argue that legal marriage has never been an institution in which spouses, especially wives, enjoy equality and the benefits and protections of marriage that have been traditionally enjoyed by husbands. It appears, however, that most organizations serving as advocates for homosexual individuals and their intimate unions are fighting for access to legal marriage.

Although they receive much less public attention, heterosexual licensed domestic partnerships are also a source of controversy. Those promoting heterosexual legal marriage on the basis of family decline concerns argue that opposite-sex couples are engaging in a rational-choice approach to coupling, looking to attain the benefits of marriage while attempting to avoid its costs and obligations. For example, they assert that cohabiting couples, licensed and otherwise, wish to enjoy the financial benefits of marriage by sharing household expenses, while also maintaining financial independence from their partners. Similarly, they are looking to attain the companionship found in marriage while also desirous of more emotional independence from their partners than spouses have from each other. Those in the family decline camp assert that by licensing heterosexual cohabitation, and thereby encouraging couples to cohabit rather than marry, legal marriage is losing its social status as the ultimate method of coupling in society and is being redefined as simply one of several equally valid and valued coupling options. The repercussions, they argue, are significant: adults reduce their sense of commitment and are less likely to fulfill their obligations to others, leading to less security for both adults and children.

Advocates of licensed domestic partnerships, however, assert that emotional commitment and the sense of obligation to partners and children do not differ among licensed partners or the legally married. Instead, marriage is associated with liabilities that may be avoided in licensed partnerships without undermining the quality of or obligations in intimate unions. For example, in legal marriage, spouses are responsible for each other's debts, whereas in licensed domestic partnerships, because the partners are legally single, the financial well-being of one partner is protected from the financial problems of the other partner. Because the partners reside together, the economic well-being of both partners and any children residing with them is protected. Similarly, marriage for some

is associated with the oppression of women. Some women in licensed domestic partnerships believe that they are able to avoid what they see as the patriarchal nature of marriage by becoming licensed partners instead. As a result, they assert that they have attained equitable relationships that would not be possible in legal marriage.

In summary, civil unions, same-sex marriage, reciprocal beneficiaries, and licensed domestic partnerships provide some, but not all, of the legal benefits and protections of heterosexual marriage. As a result, these options are not, to date, the legal equivalent of marriage. Furthermore, these couples do not enjoy the social or cultural support promoting the maintenance of their unions that legally married couples enjoy. If indeed individuals in families engaging in nonheterosexual or nonmarital forms of coupling experience lower levels of well-being (and to date, research has not been conducted exploring this issue), the reasons should not be surprising.

See also **Gay Parent Adoption**

Further Reading

Cantor, Donald J., Elizabeth Cantor, James C. Black, and Campbell D. Barrett, *Same-Sex Marriage: The Legal and Psychological Evolution in America.* Middletown, CT: Wesleyan University Press, 2006.

Human Rights Campaign, "HRC: Civil Unions." http://www.hrc.org/Template.cfm?Section=Civil unions1&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=23&ContentID=21804

Human Rights Campaign, "HRC: Domestic Partners." http://www.hrc.org/Template.cfm?Section=Domesticpartners1&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=23&ContentID=103

Human Rights Campaign, "Massachusetts Marriage/Relationship Recognition Law." http://www.hrc.org/Template.cfm?Section=Center&CONTENTID=27640&TEMPLATE=/ContentManagement/ContentDisplay.cfm

Pinello, D. R., *America's Struggle for Same-sex Marriage.* New York: Cambridge University Press, 2006.

Popenoe, D., *State of Our Unions: The Social Health of Marriage in America, 1999.* New Brunswick NJ: National Marriage Project, 1999.

Rimmerman, Craig A., and Clyde Wilcox, *The Politics of Same-Sex Marriage.* Chicago: University of Chicago Press, 2007.

Sheridan, Sharon, and James Thrall, "Deputies Approve Compromise Resolution on Same-Sex Unions." *Episcopal News Service* (August 8, 2003). http://www.episcopalchurch.org/3577_18576_ENG_HTM.htm

Sprigg, Peter, "Homosexualty: The Threat to the Family and the Attack on Marriage." March 29, 2004. http://www.frc.org/get.cfm?i=PD04F01

Willetts, M. C., "An Exploratory Investigation of Heterosexual Licensed Domestic Partners." *Journal of Marriage and Family* 65 (2003): 939–952.

Willliams, H. K., and R. E. Bowen, "Marriage, Same-sex Unions, and Domestic Partnerships." *Georgetown Journal of Gender and Law* 1 (2000): 337–359.

DOMESTIC VIOLENCE—BEHAVIORS AND CAUSES

Rachel Birmingham

Domestic violence, also known as intimate partner violence, is a significant concern in society today. It is estimated that 9 million couples, or one in six marriages, experience some form of intimate partner violence, with 21 percent of all violent crimes committed against women perpetrated by a romantic partner (Strong, DeVault, and Cohen 2010). Although violence against women in intimate relationships has existed for centuries, it has only become widely acknowledged as problematic since the latter half of the 20th century. Many credit this increased awareness to social and political movements such the second wave of feminism, also known as the modern women's movement, that have argued for equality and basic rights regardless of gender. Also, in association with an increase in activity in the academic, medical, social, and political communities, legislation has been enacted for the purposes of domestic violence protection, prevention, and education.

Policies such as the 1994 Violence against Women Act help to empower women through the funding of prevention and intervention programs. Despite the fact that social change has been credited with spurring protective legislation and social awareness concerning intimate partner violence, many claim that there has been a limited social understanding of the experiences of women in violent relationships, and there remains a victim-blaming bias in how we have responded to domestic violence as a society.

As an aside, it is thoroughly acknowledged that women are not the only victims of domestic violence, because this is a social problem that victimizes men as well. However, research shows that the vast majority of reported domestic abuse victims in U.S. society are women. Additionally, the injuries suffered by women tend to be more severe than those suffered by men. Therefore, we will focus on domestic violence as it affects women primarily.

Abuse Behaviors

Behaviors associated with intimate partner violence are usually categorized into the following groups: physical abuse, emotional abuse, sexual abuse, and financial abuse. Although all are harmful, when there are limited resources in a community, leaders must choose where to direct these resources to do the most good. The most visible category is physical abuse, which has received the most attention from research and advocacy groups. This does not, however, imply that it is the most harmful or important abuse behavior. The following definitions of abusive behaviors have been taken from the National Center for Injury Prevention and Control (2008) and will be described here in greater detail.

Physical Abuse

Physical abuse is defined as the intentional use of physical force with the potential for causing death, disability, injury, or harm. Physical violence includes, but is not limited to, scratching, pushing, shoving, throwing, grabbing, biting, choking, shaking, slapping, punching, burning, use of a weapon, and use of restraints or one's body, size, or strength against another person. Consequences associated with physical abuse are severe and far reaching, resulting in death in extreme cases. This is what most persons stereotypically picture when they hear the phrase "battered wife."

Emotional Abuse

Psychological or emotional abuse involves trauma to the victim caused by acts, threats of acts, or coercive tactics. This can include, but is not limited to, humiliating the victim, controlling what the victim can and cannot do, withholding information, deliberately doing something to make the victim feel diminished or embarrassed, isolating the victim from friends and family, threatening or terrorizing, and denying access to basic resources. Scholars have reported that as many as 80 to 90 percent of women will experience psychological maltreatment at some point in an intimate relationship (Neufeld, McNamara, and Ertl 1999). The consequences of such abuse have been found to have devastating impacts on survivors as well. In fact, due to the devastating consequences of emotional abuse, many survivors report that they would rather be physically hit than emotionally abused by an intimate partner.

Sexual Abuse

The National Center for Injury Prevention and Control, a subgroup of the Centers for Disease Control and Prevention, defines and divides sexual abuse into three categories: (1) the use of physical force to compel a person to engage in a sexual act against his or her will, regardless of whether the act is completed; (2) an attempted or completed sex act involving a person who is unable to understand the nature or condition of the act, to decline participation, or to communicate unwillingness to engage in the sexual act (e.g., because of illness, disability, the influence of alcohol or other drugs, or because of intimidation or pressure); and (3) abusive sexual contact. Studies show that between 10 and 14 percent of wives have been forced into sexual activity by their partners (Strong, DeVault, and Cohen 2010). It is often difficult for women who are sexually abused by an intimate partner to seek help, because it is often the case that sexual activity within relationships, whether voluntary or coerced, is not recognized as abusive. Although sexual abuse within intimate relationships has achieved more recognition through increased research and media attention, it is still often very difficult for a victim to seek help or to receive the validation needed to overcome such traumatic experiences.

Financial Abuse

Financial abuse is usually characterized by an abuser withholding funds, stealing assets, stealing property, or compromising a partner's financial liberties. It can be difficult for the victim to seek relationship alternatives in situations where financial abuse is present, because the victim is often totally dependent on the abuser to provide for basic needs. This is especially true when children are involved. With this lack of resources available to the victim, there is also an increased risk of homelessness for the women and children impacted by violent relationships—an issue that will be discussed in further detail later.

Common Couple Violence Versus Intimate Terrorism

Among the issues that have made it difficult to get the needed attention for domestic violence is the wide range of behaviors that fall under the umbrella of abuse. For many years, there was a stereotypical image of a battered woman who was the victim of abusive beatings. However, recent thinking about domestic abuse has expanded to include a variety of unwanted violent acts. Intimate partner violence takes many forms and involves many behaviors that are detrimental to the victim. In addition, some theoretical and methodological considerations in relation to intimate partner violence must be examined. Based on the work of Michael Johnson (1995), several theoretical distinctions have been made regarding domestic abuse. These categories originally arose during a comparison of samples of domestic violence victims gathered from the general population and those from shelters. They also differ in areas related to power dynamics and behavioral characteristics as well as on overall outcomes for victims. Johnson terms these distinctions *common couple violenc*e and *intimate terrorism.*

Common Couple Violence

Common couple violence is considered the most common type of violence that occurs in relationships and is a less dangerous form of intimate partner violence. In situations where violence is present, conflict usually arises from a mutual disagreement between the partners and is equally perpetrated among partners, although women are more likely to be injured during violent episodes. It is important to recognize that both partners can be violent in this scenario. This form of violence rarely escalates over time and is more likely to be identified through surveys of the general population.

Intimate Terrorism

Intimate terrorism, also referred to as patriarchal terrorism, is severe and can be lethal. In situations where intimate terrorism is present, the abuser usually demonstrates power and control in order to dominate the partner. Conflict in these relationships is usually one-sided and intense. In these relationships, conflict usually escalates over time and increases in both frequency and intensity. Intimate terrorism is frequently characterized by a physical or emotional domination of the victim and often involves social isolation,

financial dependence, and emotional degradation and is characterized by feelings of fear and hopelessness. Johnson reported that victims of intimate terrorism are more likely to be identified through research that focuses on specific samples, such as women in shelter settings.

While Johnson's work has been credited with uncovering a broad range of domestic violence types, there is some concern with defining domestic violence in this way. For example, the term *common couple violence* suggests that all partners participate and it must therefore be normal to do so. If this type of violence is assumed to be a normal part of relationships, that changes how society is willing to respond. There is a concern that a partner's requests for help may not be taken seriously if she were violent against her spouse. This could set up a situation in which only victims of intimate terrorism may be seen as worthy of assistance by shelters and other agencies. A victim of common couple violence, then, may be blamed for putting herself in a situation in which she and the partner resorted to violence.

Why Doesn't She Just Leave?

A common question that arises in relation to domestic violence is *why doesn't she just leave?* Surely women do not enjoy being treated this way, so why don't abused women get out? Many feel that if a victim of domestic violence *really* wanted to leave the relationship, she would just move on. However, as will be discussed further, the circumstances that often surround domestic violence, especially in situations where intimate terrorism is present, tend to be complex, and choosing to leave can be much more difficult, if not more lethal, than most people may realize. The suggestion that she should just leave blames any future abuse on her decision to stay; thus, the victim blaming becomes acute.

Barriers to Seeking Help

Due to various social barriers, many abused women do not perceive their decision to remain in a violent relationship as a choice at all, because few, if any, reasonable alternatives may be available. Common barriers that exist for victimized women include social isolation, financial dependence, fear of repercussions, pressure to keep the family together, and a lack of appropriate community response. Advocates for the victims of domestic abuse debate which of these exerts the most pressure on women to stay in abusive situations.

Social Isolation

As noted in the discussion of Johnson's concept of intimate terrorism, social isolation is a common factor found in most cases of domestic abuse. It is quite common in situations of intimate terrorism, because isolating one from the external support system enables the abuser to maintain power and control through forcing dependency of the victim on the

abuser. This can include instances in which the victim is moved, often repeatedly, from place to place to ensure a lack of social contacts such as friends and family and external support such as community resources. In our individualistic society, this isolation is especially problematic because of cultural norms regarding the right to privacy of the family. The practice of purposeful isolation usually involves limiting access to friends, family, and coworkers or forbidding outside employment altogether. Increasing isolation of the victim greatly decreases the perceived and actual availability of support in situations of abuse. Therefore, escape from abusive relationships becomes all the more difficult. In fact, isolation increases the likelihood that a woman will live with an abusive partner from 12 to 25 percent (Bosch and Schumm 2004).

Financial Dependence

Studies show that domestic violence is more likely to occur in situations where couples are less educated and live in poor economic conditions. Poverty, which is directly correlated with lower levels of education, is also a strong predictor of domestic violence. In fact, among all couples, a top cause of conflict is related to economic stress and strain. In addition, a woman living in poverty is more likely to be financially dependent on her abuser, especially if she is unable to work. Therefore, for many women, the reality is that if she chooses to leave her abuser, the alternative is an inability to provide for her children and herself and possibly experiencing homelessness.

Fear of Repercussion

Many women remain in violent relationships because they are afraid to leave; the abuser has threatened severe violence, or he has threatened to kill the woman or her children. This fear may be quite valid, because most of the severe acts of violence tend to be perpetrated against women who have left or attempted to leave a violent relationship. Furthermore, a woman is more likely to be murdered during the first six months following her exit from an abusive relationship than at any other time in her life, and at least 67 percent of women homicide victims had a history of physical abuse by an intimate partner (National Center for Victims of Crime 2009).

Many women who exit abusive relationships are stalked by their abuser. Stalking is an issue of significant concern because it often results in psychological problems, including anxiety, insomnia, fear, depression, loss of work time, and the need for legal protective orders. Furthermore, the risk of homicide for stalked women is substantial; 76 percent of women who are murdered were stalked by their killer during the year prior to their death (National Center for Victims of Crime 2009).

Pressure to Keep the Family Together

Societal norms and values concerning the family often create pressure for women to keep their families together. Therefore, if a woman—especially a married woman—is

in an abusive relationship, she may find it difficult to separate her family. Many women believe that if their children are not being directly physically assaulted, they are being protected from the abuse. This is seldom the case, because most children are much more aware of domestic violence than their parents realize. Furthermore, many women have been raised to believe that the outcomes of raising children in a single-parent home would be a far worse alternative to the abuse. Also, many abused women receive messages from friends, family members, or members their religious community that steps must be taken to ensure the family is kept together, regardless of the presence of abuse. This not only places women and children at risk but also places responsibility for the family health on the abused women.

Lack of Appropriate Community Response

Another barrier that domestic violence victims face is a lack of appropriate community response. Often, the seriousness of abuse situations is underestimated, or blame is placed on the victim. Survivors of abuse often report that they experienced being mocked, blamed, or completely ignored by law enforcement. It is also common for abuse victims to not report the abuse because they feel hopeless about the situation—as if it would not make a difference or things would only worsen. Thus, abused women may be abandoned by the system and left in a more dangerous situation with a perpetrator who has been agitated by her attempts to seek help.

In addition, a common concern experienced by abused mothers is that they will lose their children if they attempts to sever ties with the abuser. This concern is valid, because there are many documented cases of women losing custody of the children to an abuser, especially when domestic violence is present. A common misconception in society is that mothers are favored for custody within the court system. However, abused women increasingly are losing custody of their children on the basis of an inappropriate judicial response to domestic violence. For example, Parental Alienation Syndrome is a scientifically invalid condition in which a woman is accused of making up accusations of violence and abuse with the expressed purpose of alienating her children from the abuser. Although the syndrome has been debunked and deemed as so-called junk science, it still remains one of the most widely used arguments in the U.S. legal system to award primary child custody to abuse perpetrators.

Learned Helplessness?

A commonly taught principal on college campuses today regarding domestic violence victims is that of learned helplessness. The theory, originally derived from Martin Seligman's experiments with dogs, has been applied to abused women and was commonly accepted as an explanation regarding why a woman might not leave an abusive situation. In developing her concept of battered woman syndrome, psychologist Lenore Walker (2000) drew heavily on this idea. The argument is that a victim who has been repeatedly

worn down both physically and emotionally by an abuser will reach a psychological state where she perceives that she is neither able nor worthy enough to escape her situation. Consequently, she loses her will to leave the relationship. Therefore, learned helplessness focuses a great deal on the psychological condition of victims, who commonly report having feelings of low self-esteem, depression, self-blame, passivity, and guilt, as well as experiences of repeated victimization, including those during childhood and adulthood.

In contrast, many argue that learned helplessness fails to take into account the fact that women often remain in relationships for rational reasons, such as those discussed previously, and not for psychopathological reasons. In addition, many criticize the approach that learned helplessness takes to domestic violence victimization in that it places the primary reasoning behind and responsibility for abusive relationships on women. This constitutes another form of blaming the victim. Those who are skeptical of the learned helplessness argument suggest that domestic violence should be viewed in terms of the context of the situation and the resources, or lack thereof, available to the victim, including the social response to domestic violence, as opposed to the characteristics of the victim.

What Resources Are Available?

In many communities, domestic violence organizations exist in some capacity. Common services provided by these groups are adult victim counseling, child counseling, legal assistance, voucher plans (for necessities such as food, clothing, and furniture), shelter services and protection if deemed necessary, transitional housing for women and children, safety planning, and coordination of or participation in community activism on behalf of domestic violence victims.

Many online educational resources exist pertaining to domestic violence as well. Some focus exclusively on the victim by providing information on abuse signs and symptoms, safety planning and tips, building healthy relationships, and prevention by providing information on local community resources. Such resources can be found through the Department of Health and Human Services, the Centers for Disease Control and Prevention, Womenshealth.gov, or MEDLINEplus.

Other services include those sponsored by the National Coalition against Domestic Violence. The cell phone program accepts donations of old cell phones to provide means of emergency communication for domestic abuse victims in need of immediate help. In addition, the National Domestic Violence Hotline (1-800-799-SAFE) exists for anyone who may need help or advice pertaining to domestic abuse. Anyone who suspects that they, or someone they know, may be in an unhealthy or abusive relationship is advised to seek the guidance of one of the above listed organizations. Taking a step that is as simple as making a phone call can save a life.

Finally, national movements such as Take Back the Night exist to provide individuals and communities with the opportunity to be empowered through providing a voice to victims to be heard and to live lives that are free from violence and abuse.

Conclusion

A common critique pertaining to research on and response to domestic violence is that most approaches to this social problem are oriented from a victim-blaming perspective. Even in this discussion, which focuses on the awareness of such a bias, domestic violence must still be approached largely from this perspective. This emphasis on the role of the victim is very difficult to avoid, because a substantial portion of what we know about domestic violence comes from examination of the victim's choices as opposed to those of the perpetrator. This perspective is not an inherent flaw, because understanding the issues facing domestic violence victims is critical to providing assistance and increasing awareness. However, caution must be taken when examining abuse from this perspective if we are to avoid placing primary responsibility for the occurrence and continuation of domestic violence on the victim. This is critical, because it is through an examination of this social problem from multiple perspectives that we will be better equipped to address ending domestic violence as a responsibility of society as a whole.

See also **Addiction and Family; Child Abuse; Domestic Violence Interventions (vol. 2)**

Further Reading

Bosch, Kathy, and Walter R. Schumm, "Accessibility to Resources: Helping Rural Women in Abusive Partner Relationships Become Free from Abuse." *Journal of Sex and Marital Therapy* 30 (2004): 357–370.

Denmark, Florence, and Michelle Paludi, eds., *Psychology of Women: A Handbook of Issues and Theories,* 2d ed. Westport, CT: Praeger, 2008.

Family Shelter Service, "Learned Helplessness vs Survivor Hypothesis." http://www.familyshelterservice.org/pdf/survivor.pdf

Johnson, Michael P., "Patriarchal Terrorism and Common Couple Violence: Two Forms of Violence against Women." *Journal of Marriage and Family* 57 (1995): 283–294.

Johnson, Michael P., and K. J. Ferraro, "Research on Domestic Violence in the 1990s: Making Distinctions." *Journal of Marriage and Family* 62 (2000): 948–963.

National Center for Injury Prevention and Control, "Intimate Partner Violence: Definitions." October 21, 2008. http://www.cdc.gov/ViolencePrevention/intimatepartnerviolence/definitions.html

National Center for Victims of Crime, "Stalking Facts" (2009). http://www.ncvc.org/src/main.aspx?dbID=DB_statistics195

Neufeld, B. "SAFE Questions: Overcoming the Barriers to Detecting Domestic Violence." *American Family Physician* 53 (1996): 2575–2581.

Neufeld, J., J. R. McNamara, and M. Ertl, "Incidence and Prevalence of Dating Partner Abuse and Its Relationship to Dating Practices." *Journal of Interpersonal Violence* 14 (1999): 125–137.

Seligman, M.E.P., and S. F. Maier, "Failure to Escape Traumatic Shock." *Journal of Experimental Psychology* 74 (1967): 1–9.

Sokoloff, Natalie J., with Christina Pratt, *Domestic Violence at the Margins: Readings on Race, Class, Gender, and Culture.* New Brunswick, NJ: Rutgers University Press, 2005.

Strong, Bryan, Christine DeVault, and Theodore F. Cohen, *The Marriage and Family Experience,* 11th ed. Belmont, CA: Wadsworth, 2010.

Walker, Lenore E. A., *The Battered Woman Syndrome,* 2d ed. New York: Springer, 2000.

DROPOUTS

Jessica Ruglis

Colloquially, the term *school dropout* refers to a young person who has not completed high school. Linguistically, the choice of the word *dropout* places the responsibility and onus of leaving school solely on the individual. It obscures the pathways by which students ultimately "choose" to leave school, and the structures that lead to dropping out remain blameless. School dropout reflects not on the structures of the school the youth attended, on his or her schooling experiences, nor on the student's worlds and realities outside of school.

School dropout is a term that refers to a young person who does not graduate from school with a traditional diploma. These youth leave school by choice or by force or are pushed out due to "rationalized policies and practices of exclusion that organize" public high schools (Fine 1991, 6). In any event, the ultimate result is the same: a young person does not finish high school. Historic educational policies and practices mask the phenomenon of school dropout such that it rears itself as an outlier: a rare dysfunction of an individual failing within a system, and, like all social outcomes resulting from structural preclusion, it carries a detrimental blame-the-victim ideology. In the context of education, this ideology presents young people who drop out as failing to measure up to academic standards and their subsequent bleak social status and life outcomes as a natural consequence of education's ethos of equal opportunity for all.

Given that the graduation rate crisis disproportionately plagues students of color and low-income and special education students; recent immigrants; lesbian, gay, bisexual, transgender/transsexual, and queer/questioning youth; students with disabilities; homeless youth; youth caught in foster care; and youth caught in the criminal and juvenile justice systems, school dropout has a disparate impact, affecting youth who are already lacking in resources, opportunities, and voice.

A miseducation, however we name its end results, has substantial costs. For each youth and community disenfranchised by its school system, there are staggering economic and social impacts, heavy consequences for criminal justice, costs to civic and political participation, and grave implications for health. Dropouts are more likely to receive public assistance, be unemployed, live in poverty, end up in prison and on death row, die earlier, and suffer from a wide range of chronic and acute diseases and health problems. On average, dropouts earn $9,200 less per year than high school graduates and $1 million less over their lifetime than do college graduates. Beyond dropping out,

children forced out of the school system are more likely to engage in conduct harmful to the safety of themselves, their families, and communities.

The Current Landscape of Graduation

Nationally, 68 percent of all students graduate from high school over the traditional four-year period; yet ethnic disparities in these graduation rates are striking. While 76.8 percent and 74.9 percent of Asian/Pacific Islanders and whites, respectively, graduate from high school, Native Americans, blacks, and Latinos all have graduation rates that hover around 50 percent. In some cases, Asian refugees—particularly Laotian, Cambodian, Vietnamese, and Hmong—and Pacific Islander students graduate at rates similarly as bleak. Immigration and socioeconomic status are important contextual variables in the success of immigrant students. On average, boys graduate at a rate 8 percent lower than girls, and graduation rates for youth attending high-poverty, racially segregated, urban schools fall between 15 and 18 percent behind their peers.

The data are similar for the special needs population, where only 32 percent of classified students with disabilities graduate from high school. Low-income children and children of color are overrepresented in special education (including being labeled as having emotional or behavior problems), school disciplinary actions, and in the juvenile and criminal justice systems—all of which correlate to school dropout. Compounding these statistics is the fact that children from low-income families are twice as likely to drop out of school as children from middle-income families and are six times more likely to drop out than children from high-income households. Ninth grade is thought to be the most critical year in influencing school dropout. A silenced history exemplifies this trend: between 1970 and 2000, the rate at which students disappeared from school between 9th and 10th grade *tripled.* And that does not include the leakage from 8th to 9th grade.

Data this staggering have inherent antecedents, leaving the current graduation rate crisis to illuminate a historical genesis of an institution that systematically fails entire groups of youth.

Historical Controversies of School Dropout

In closely examining the history of schooling, it becomes readily apparent that school dropout is a dialectic: it is both a deliberate *and* an unintended consequence of a system structured to maintain the status quo. This becomes evident through the ways by which schools ensure the development, success, and privilege of the white, dominant classes at the expense of those on the margins. The process of schooling is a means to assimilate and acculturate on one hand and to provide liberation, freedom, and educational, social, and economic equity on the other. Deeply contested and holding these two antithetical meanings, school dropout can no longer remain invisible. It has seeped through the cracks, appearing in the staggeringly low graduation rates and in real dollar costs to the

criminal justice and health care systems at the expense of the educationally disenfranchised. The facade of educational opportunity and the influence of differing ideologies seem to be the interface between these two conflicting forces.

The Muddled Roots of the School Dropout

Several educational practices throughout the history of schooling have been discussed in relation to school dropout. Academic tracking, a practice that has been around since the post–Civil War era, has always had the greatest percentage of low-income students and students of color occupying the lower academic tracks. These students are labeled and tracked into a marginal future, without the personal growth of one's own soul, aspirations, and spirit. With limited occupational and economic opportunity, being placed in a low academic track has always been a practice that serves as a precursor to school dropout.

One of the biggest misconceptions about young people who drop out is that they have no desire and motivation to learn, place little value on an education and learning, and are not interested in school. As it turns out, and as is detailed in the following section, schools often prevent young people from enacting their desire and motivation for learning and success. In fact, history is pervasive with examples of *social movements* for education, acts that can only be explained by both individual and a collective's desire and motivation for schooling.

Underfunding, chronic overcrowding, and poor schooling conditions are also historic educational practices that contribute to school dropout. Schools and districts that serve large immigrant populations, those of low income, and communities of color have been underfunded, overcrowded, and not well maintained. Subsequently, the quality of education achievable in these conditions pales in comparison to the educational opportunities and access to resources of their more privileged and white counterparts. Deliberate underdevelopment and a decrepit physical environment significantly shape educational limitations. For example, it has often been reported that overcrowding schools was a way to get young people to drop out. This was achieved through the practice of double-shift schooling, in which schools were filled beyond overcapacity to the extent that they needed to run several shifts of students throughout one single day. As a result, class time and total hours spent in school for each pupil decreased, and the time spent *out of school* increased. This practice, in essence, manufactured dropouts.

Contemporary Conflicts in School Dropout

School dropout is the end stage in a cumulative and dynamic process of educational disengagement and dispossession. The controversy and conflict surrounding who is to blame for dropout—the individual or the school system—are embedded into each category and represented by the range and scope of the data. The research reflects a diverse

array of ideological and theoretical positions. Themes of alienation, lack of school engagement, and the nature of the school setting and culture that emerge from the literature are presented.

Causes of School Dropout Individual-Level Characteristics

Individual attributes associated with school dropout include feelings of alienation, disliking or feeling disconnected from school, decreased levels of school participation, and low educational or occupational self-expectations. Diminished academic aspirations may reflect the changing labor market and economic forces operating at higher levels of social organization. Additionally, when students feel that the locus of control for their success resides outside of themselves, they report feeling less academically inclined.

Compared to their counterparts who complete school, dropouts are less socially conforming; more likely to challenge openly their perceived injustice of the social system; less accepting of parental, school, social, and legal authority; more autonomous; more socially isolated; and less involved in their communities. For some young people, dropping out may be a form of resistance or critique of the educational system. And the effect of self-esteem on school dropout is contested, with some research showing an association and some not.

Behaviors associated with dropout include disruptive conduct; truancy; absenteeism; lateness; substance use; pregnancy and parenting; mental, emotional, psychological, or behavioral difficulties; and low participation in extracurricular activities. These behaviors may be influenced by differing school environments, again pointing to the role that inequitable schools play in shaping the production of school dropout.

The foremost cause of school dropout for adolescent women is teenage pregnancy, accounting for between 30 and 40 percent of the young women who leave school, although alternative evidence demonstrates that often young women stop attending school and *then* get pregnant. Adolescent men are also affected by teen pregnancy, as they may drop out to earn money to support a child. Compared to school completers, dropouts are more likely to be substance abusers, and to have started substance abuse early; more likely to be involved in the sale of drugs; and more likely to have friends engaging in behavior deemed to be socially deviant. Mental illness and emotional disturbance also account for a significant percentage of high school dropouts—reports state that between 48 and 55 percent of young people with mental and emotional troubles fail to graduate high school.

Individual school experiences greatly impact the likelihood of graduation. Students held back in school are more than *11* times as likely to leave school as their peers, and several studies identify grade retention (being held back a grade) as the most significant predictor of school dropout. Poor academic achievement, low self-expectations, low grades, lower test scores, and course failure all contribute to school dropout. Here,

too, these individual factors must be viewed as manifestations of accumulating poor educational experiences. In fact, 45 percent of students report starting high school very underprepared by their earlier schooling.

Economic constraints also influence dropout. Surveys of dropouts show that having to get a job, conflicts between work and school, and having to support a family are important reasons for leaving school. However, the overwhelming majority of all dropouts report that education and graduating are important to success in life. Data indicate the high *value* that dropouts place on education and their strong *desire* for education, despite rhetoric on dropouts that argue the opposite.

Family Characteristics

Family characteristics associated with dropping out are low levels of family support, involvement, and expectations for education achievement; low parental education attainment; single-parent homes; parenting style; few study aids available at home; less opportunity for nonschool learning; financial problems; and low socioeconomic status. Low expectations for a child's academic success by adults have been shown to increase a child's likelihood of dropping out fivefold.

Residential or school mobility are also considerably linked to school dropout. Importantly, what often appears to be lack of parental involvement in education is actual life constraints of living in poverty, having to work more than one job, employment where parents cannot take time off of work, language barriers between the family and school personnel, or the symbolic representation of schools as unwelcoming institutions for parents who were not successful in schools themselves.

Many adolescents, especially young women, carry the burden of caring for their family, forcing them to leave high school due to social or health needs of their loved ones. Compared to school completers, dropouts are more likely to translate for family members, help to find health care for their family, and care for the elderly and children in their families. Young men are often forced to economically sustain their families. Family stress, parental substance abuse, physical or sexual abuse of children, lack of health insurance, family health problems, having to care for a family member, or the death of a loved one can contribute to the decision (or need) to drop out.

Neighborhood and Community Characteristics

Communities with high levels of crime, violence, drug-related crime, and arson have higher rates of school dropout than communities with fewer of these problems. Some studies indicate that communal social support promotes school engagement and improves chances for school graduation among racial and ethnic minority students. Similarly, cultural norms of schools and cultural and linguistic tensions between the home and community (and often country) from which students come contribute to educational disenfranchisement, leading to school dropout.

School Characteristics

Attributes of schools and school systems significantly influence dropout rates. Poverty again plays a central role, with a school's mean socioeconomic status being the most significant independent influence on graduation rates. In addition, higher levels of segregation, more students of color, more students enrolled in special education, and location in central cities or larger districts are also associated with lower graduation rates. It is neither an accidental correlation nor coincidence that race and ethnicity, socioeconomic class, and level of urbanization are implicated in higher rates of school dropout.

School climate is a central component of school engagement and, therefore, school completion. Punitive school policies (standardized testing, changing academic standards without supports, tracking, unfair and stringent discipline policies, frequent use of suspensions) all affect academic engagement and success. When social support and positive relationships with adults in the school are diminished, so is a young person's connectedness to school. And school engagement and connectedness are two widely supported causes of staying in school.

School Policies

High-stakes testing, a practice whereby student advancement is determined primarily by tests, also influences dropout rates. Comparing states that employ high-stakes testing to those that do not shows that states using such tests hold students back at much higher rates than states that do not.

More recent studies publish findings of "school pushout," in which school dropouts are forced out of school through a variety of policies and practices, like policing, discipline, and educational-tracking measures. School pushout is a concept that reframes the choice to leave school as a reflection of the larger educational systems, structures, and policies that have failed youth and that often ultimately force young people out of schools. Stemming from this phenomenon is the associated school-to-prison pipeline, a term that refers to policies and practices that ensure that when young people misbehave in school, they are turned over to the police and juvenile justice system.

School safety and discipline policies appear to have a strong effect on dropout rates. Student perceptions of unfair discipline, of low teacher interest in students, and of lack of attachment to an adult in the school all predict dropout. School disciplinary contact is among the strongest predictors of school dropout. Surveys of dropouts show that being suspended often and getting expelled contribute to the decision to drop out. Propensity for being a target of school discipline actions (number of office referrals, suspensions, and expulsions) is overwhelmingly racialized: low-income children, children of color, those in special education, and those labeled as emotionally disturbed are disproportionally impacted. Developmentally, school discipline has severe effects on a child's perception of justice, fairness, trust, capability, and self-worth and may contribute to feelings of social isolation and alienation and to engaging in high-risk behaviors.

Other school policies that have been associated with dropout include high student-to-teacher ratios, academic tracking, and a discrepancy between faculty and student demographic characteristics. Low levels of engagement to school also predict dropout. Related, a lack of sufficient programs for pregnant and parenting teens as well as comprehensive health and sex-education programs and availability of social services build barriers that make the success of particular groups of students nearly impossible. Schools that adopt such programs buffer school dropout with tremendous success.

The Controversy over Data Reporting

The issue of reporting data becomes controversial due to its absence and lack of any standardized, reliable, and valid data-collection formula. Until the No Child Left Behind Act (NCLB) of 2002, there was no federal mandate requiring graduation rate reporting. Before this, only some states kept graduation rate data. This law, while unearthing the chasm in public education, has also positioned itself in a way that can promulgate the crisis. This NCLB mandate provides little protection for low-performing students to not be pushed out of schools. Districts, in order to meet the incentives for improving their graduation rates and for meeting the annual yearly progress requirement, push lower-performing students into alternative school programs, where they are not counted as dropouts.

Also undermining any real attempt by NCLB to ensure equal educational attainment are two principles of the law. First, unlike the accountability mandates, which require test score and achievement data to be kept demographically—by income, race/ethnicity, special education status, and limited English proficiency—and for which adequate yearly progress must be made in at least one of these historically low-performing groups, when calculating the graduation rate, states must only count the overall rate; they do not have to record by demographics. This allows young people on the margins to be practically ignored and disparities in graduation rates to be silenced. Second, and also incongruent with the accountability mandates that stipulate that 100 percent of all students receive "proficient" test scores by 2014, states can establish their own formula for calculating graduation rates and their own graduation rate goals, which can range between 50 and100 percent. What NCLB has effectively done is to create a loophole that ensures, if not requires, students to be pushed out of schools in order to meet the more stringent accountability mandates—to which funding and school takeover sanctions are attached. By giving federal permission for states to aspire to a mere 50 percent graduation rate without having to record demographic data, the federal government has given the doorway for how to achieve 100 percent proficiency while maintaining the historic class and racial structure of society.

In recent years, several reports have published studies that examine and develop more accurate, comprehensive, and representative methods for calculating and capturing the landscape of educational attainment. Specifically, these measures are indicators of high

school graduation rates rather than of the more traditional and common statistics that measure either dropout rates or high school completion rates. (Dropout rates can be calculated in one of three ways: event dropout rates, status dropout rates, and cohort dropout rates.) Each of these different measures will produce very different results. To date, most states calculate dropout rates, a figure that is not the equivalent of graduation rates (those reported here).

While these newer reports calculate nearly identical statistics on high school graduation rates, data used here are from a formula developed by Christopher Swanson of the Urban Institute. This formula is the best proxy for current graduation rates, and the subsequent research details the most "extensive set of systematic empirical findings on public school graduation rates available to date for the nation as a whole and for each of the states" (Swanson 2004b, 1). The method developed is called the Cumulative Promotion Index (CPI), and it is applied to data from the Common Core of Data (CCD), the U.S. Department of Education's database, as the measure to calculate high school graduation rates. The CCD database is the most complete source of information on all public schools and local education agencies in the United States. The CPI is a variation of cohort dropout rates in that it "approximates the probability that a student entering the 9th grade will complete high school on time [in four years] with a regular diploma. It does this by representing high school graduation as a stepwise process composed of three grade-to-grade promotion transitions (9 to 10, 10 to 11, and 11 to 12) in addition to the ultimate high school graduation event (grade 12 to diploma)" (Swanson 2004a, 7). It is important to emphasize that the CPI only counts students who receive high school diplomas as graduates and not those who earn a GED or other alternative credentials, thus overrepresenting the number of people "graduating" from high school. This is in keeping with the NCLB mandate for what constitutes a diploma. This index was created as a response to methods that are commonly used to determine educational attainment.

The more common statistical measures of dropout rates and high school completion rates have significant limitations. *Dropout rates,* meant to capture only the percentage of students that actually drop out of school, are based on underreported and underrepresented data, because there is no standard mechanism for reporting, coding, or accounting for students who drop out. Districts often title students who may have indeed dropped out or been pushed out as having transferred or moved or as missing. This false representation leads to an exaggerated picture of how well a school is doing. High school *completion rates* count General Educational Development (GED) graduates and students receiving alternative credentials as high school graduates. As such, data measuring high school completion differ greatly from those measuring graduation rates. Incorporating GEDs and other alternative credentials in graduation rates is problematic for two primary reasons. First, recipients of the GED or alternative certifications are not graduates of high school; therefore, their credentials cannot be attributed to the

school system. Second, the economic and higher educational returns from students with a GED is not equivalent to those with a high school diploma.

The most common graduation and dropout statistics are cited from the National Center for Education Statistics (NCES), which calculates its data as high school completion rates but reports its data as a high school graduation rate of over 85 percent (2007). The NCES statistic has relatively low levels of national coverage and is computed using data from only 54 percent of U.S. school districts and 45 percent of the student population.

The NCES uses data from the Current Population Survey (CPS). The CPS, conducted by the U.S. Census Bureau, is a simple self-report survey conducted in noninstitutionalized settings and on people who are neither currently in school nor recently graduated. This measure surveys the general young adult population (ages 18–24), not school district information. Students may report GED attainment as high school completion, they may misrepresent their education level, and it may underrepresent low-income youth who are disproportionately dropouts. Youth in low-income communities are often harder to find and interview. The CPS also underrepresents black and Latino youth, who are incarcerated at high rates and are therefore excluded from participating in the survey because prisons are institutionalized settings. Collectively, this measure offers a much higher and nonreliable depiction of the state of high school graduation—one that masks the crisis.

Conclusion

The implications of how dropout is framed—either as an individual burden or as the fault of the institution—have drastically different consequences. For each young person disenfranchised by his or her school system, there is a fraying of the public belief in the common good, a threat to a collective sense of democratic belonging, substantial losses to communities, economic and social impacts, heavy consequences for criminal justice, costs to civic and political participation, and dire implications for health.

With increasing public and educational consciousness about the graduation rate crisis, many innovative and effective dropout-prevention programs are being created and implemented. With the move for schools to incorporate school-based health centers and other social service supports, young people are provided supports and resources that make their engagement and success in school possible. When schools and programs reflect the stance that schools need to support students, and not that students are deficient of success, this crisis has the ability to change.

See also **Government Role in Schooling; Juvenile Delinquency; Teen Pregnancy**

Further Reading

Fine, M., *Framing Dropouts: Notes on the Politics of an Urban Public High School.* Albany: State University of New York Press, 1991.

Franklin, C., et al., eds., *The School Practitioner's Concise Companion to Preventing Dropout and Attendance Problems.* New York: Oxford University Press, 2008.

Mishel, L., and J. Roy, *Rethinking High School Graduation Rates and Trends.* Washington DC: Economic Policy Institute, 2006.

Orfield, G., ed., *Dropouts in America: Confronting the Graduation Rate Crisis.* Cambridge, MA: Harvard Education Press, 2004.

Swanson, C., *The Real Truth about Low Graduation Rates: An Evidence-Based Commentary.* Washington, DC: Urban Institute, 2004a.

Swanson, C., *Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001.* Washington, DC: Urban Institute, 2004b.

DRUGS

Nancy D. Campbell

Drugs enjoy a social significance different from other commodities, technologies, or artifacts. Celebrated by artists and visionaries from the 19th-century Romantics to the 20th-century Beats to 21st-century hip-hop musicians, drugs have been seen to shape minds and bodies in socially positive and problematic ways. Prescription drugs are credited with improving health, productivity, and well-being, whereas nonprescription drugs are blamed for destroying minds and bodies. How society views drugs depends on who produces them, how they are distributed and marketed, and who consumes them and how. Many controversies surround the workings of these fascinating, functional, and sometimes dangerous technologies.

Drugs as Pharmaceutical Wonders

History reveals a remarkable parade of "wonder drugs"—such as heroin, introduced in 1898 by the German pharmaceutical company Bayer as a nonaddicting painkiller useful for treating tuberculosis and other respiratory diseases. Bayer introduced aspirin a few years later as a treatment for rheumatoid arthritis but promoted it aggressively for relief of headache and everyday aches and pains. Today, aspirin is the world's most widely available drug, but there was a time when pharmacists smuggled it across the U.S.-Canadian border because it was so much more expensive in the United States than elsewhere. Cocaine, distributed to miners in the Southwest as an energizing tonic, was used much as amphetamines and caffeine are used in postindustrial society. Barbiturates; sedative-hypnotics such as thalidomide, Seconal, or Rohypnol; major and minor tranquilizers; benzodiazepines such as Valium; and painkillers or analgesics have all been promoted as wonder drugs before turning out to have significant potential for addiction or abuse and are also important for medical uses—for instance, cocaine is used as an oral anesthetic.

Wonder drugs are produced by pharmacological optimism—the myth that a drug will free human societies from pain and suffering, sadness, anxiety, boredom, fatigue,

mental illness, or aging. Today, lifestyle drugs are used to cope with everything from impotence to obesity to shyness to short attention spans. Yet adverse prescription drug reactions are the fourth leading cause of preventable death among adults in the United States. Some drugs, we think, cause social problems; we think others will solve them. Drugs become social problems when important interest groups define them as such. Recreational use of illegal drugs by adolescents has been considered a public health problem since the early 1950s, when the U.S. public attributed a wave of juvenile delinquency to teenage heroin addiction. Since our grandparents' generation, adolescence has been understood as a time when many choose to experiment with drugs. Today, a pattern of mixed legal, illegal, and prescription drug use has emerged among the first generation to be prescribed legal amphetamines and antidepressants. Many legal pharmaceuticals have been inadequately tested in children, and the short-term effects and long-term consequences of these drugs are unknown.

Controversy and Social Context

Portrayed as double-edged swords, drugs do not lend themselves to simple pros and cons. Drug controversies can best be mapped by asking which interest groups benefit from current policies, whose interests are at stake in changing them, and how drugs are defined differently by each group of producers, distributors, and consumers.

The basic terms through which drug debates are framed are not natural and do not reflect pharmacological properties. The meaning of drug use is best thought of as socially constructed, because it is assigned meaning within social and historical contexts. Varied meanings were attributed to the major subcultural groups of opiate addicts in the early 20th-century United States. Opium smoking by 19th-century Chinese laborers in the United States was tolerated until the labor shortage that attracted them became a labor surplus. Although laborers have long used drugs to relieve pain, stress, and monotony, the larger population of 19th-century opiate addicts was white women, born in the United States, who did not work outside the home. Pharmacy records indicate that rates of morphine addiction were high among rural Southern women from the upper and middle classes—and almost nonexistent among African Americans. Morphine addiction among men was concentrated among physicians, dentists, and pharmacists—professions with access to the drug.

Why did so many native-born white people rely on opiates through the early 20th century? Prior to World War II, when antibiotics were found useful for fighting infection, doctors and patients had few effective treatments. Opiates were used to treat tuberculosis because they slow respiration and suppress cough, for diarrhea because they constipate, and for pain (their most common use today). Physicians and patients noticed that opiate drugs such as morphine and heroin were habit-forming, however. They used the term *addict* to refer to someone who was physiologically or psychologically dependent on these drugs. In the 20th century, physicians began to refrain from prescribing

opiates except in cases of dire need. Improved public health and sanitation further reduced the need, and per-capita opium consumption fell. Despite this, the United States could still be termed a "drugged nation."

Since the criminalization of narcotics with the Harrison Act (1914), U.S. drug policy has been based on the idea of abstinence. There was a brief period in the early 1920s when over 40 U.S. cities started clinics to maintain addicts on opiates. This experiment in legal maintenance was short-lived. Physicians, once the progenitors of addiction, were prosecuted, and they began to refuse to prescribe opiates to their upper- and middle-class patients. By the 1920s, the opiate-addicted population was composed of persons from the lower or "sporting" classes. Drug users' median age did not fall, however, until after World War II. The epidemiology, or populationwide incidence, of opiate use in the United States reveals that groups with the greatest exposure to opiates have the highest rates of addiction.

Exposure mattered, especially in urban settings where illegal drug markets took root. Urban subcultures existed in the 19th century among Chinese and white opium smokers, but as users switched to heroin injection or aged out of smoking opium, the Chinese began to disappear from the ranks of addicts. Older dope-fiend subcultures gave way to injection heroin users, who developed rituals, argots or languages, and standards of moral and ethical behavior of their own. Jazz musicians, Hollywood celebrities, and those who frequented social scenes where they were likely to encounter drugs such as heroin, cocaine, and marijuana were no longer considered members of the respectable classes. The older pattern of rural drug use subsided, and the new urban subcultures trended away from whites after World War II. African Americans who had migrated to Northern cities began to enjoy increased access to illicit drugs that had once been unavailable to them. So did younger people.

Social conflict between the so-called respectable classes and those categorized as less respectable often takes place around drugs. Debates over how specific drugs should be handled and how users of these drugs should be treated by society mark conflicts between dominant social groups, who construct their drug use as normal, and subordinate social groups whose drug use is labeled as abnormal, deviant, or pathological. As historian David Courtwright (2001) points out, "What we think about addiction very much depends on who is addicted." How drugs are viewed depends on the social contexts in which they are used, the groups involved, and the symbolic meanings assigned to them.

Recent medical marijuana campaigns have sought to reframe marijuana's definition as a nonmedical drug by showing its legitimate medical uses and backing up that assertion with clinical testimonials from chronic pain patients, glaucoma sufferers, and the terminally ill. Who are the dominant interest groups involved in keeping marijuana defined as nonmedical? The voices most often heard defending marijuana's status as an illegal drug are those of drug law enforcement. On the other hand, the drug policy reform

movement portrays hemp production as an industry and marijuana use as a minor pleasure that should be decriminalized, if not legalized altogether. Views on drug policy range from those who want to regulate drugs entirely as medicines to those who are proponents of criminalization. A credible third alternative has emerged called harm reduction, risk reduction, or reality-based drug policy. Asking whose voices are most often heard as authoritative in a drug debate and whose voices are less often heard or heard as less credible can be a method for mapping the social relations and economic interests involved in drug policy. Who was marginalized when the dominant policy perspective was adopted? Who lost out? Who profited? Although the frames active in the social construction of drugs change constantly, some remain perennial favorites.

Drug Panics and Regulation

Not all psychoactive substances used as recreational drugs are currently illegal. Alcohol and tobacco have been commonly available for centuries, despite attempts to prohibit them. Both typically remain legal, except where age-of-purchase or religious bans are enforced. Alcohol prohibition in the United States lasted from 1919 to 1933. Although Prohibition reduced per-capita consumption of alcohol, it encouraged organized crime and bootlegging, and repeal efforts led to increased drinking and smoking among the respectable classes. Prohibition opened more segments of the U.S. population to the recreational use of drugs such as the opiates (morphine and heroin), cannabis, and cocaine. Although cannabis, or marijuana, was not included in the 1914 legislation, Congress passed the Marijuana Tax Act (1937) during a period when the drug was associated with, for example, Mexican laborers in the southwestern United States and criminal elements throughout the country. Cocaine was relatively underused and was not considered addictive until the 1970s. Although cocaine was present in opiate-using subcultures, it was expensive and not preferred.

Social conflicts led legal suppliers to strongly differentiate themselves from illegal drug traffickers. The early 20th-century experience with opiates—morphine, heroin, and other painkillers—was the real basis for U.S. and global drug control policy. The Harrison Act was a tax law that criminalized the possession and sale of narcotic drugs. It effectively extended law enforcement powers to the Treasury Department, which was responsible for enforcing alcohol prohibition. After repeal of Prohibition, this unit became the Federal Bureau of Narcotics, the forerunner of today's Drug Enforcement Agency.

Pharmaceutical manufacturing firms began to use the term *ethical* to distance themselves from patent medicine makers. Pharmaceutical firms rejected the use of patents on the grounds that they created unethical monopolies. Unlike the patent medicine makers with their secret recipes, ethical firms avoided branding and identified ingredients by generic chemical names drawn from the U.S. Pharmacopeia (which standardized drug nomenclature). Ethical houses did not advertise directly to the public like

pharmaceutical companies do today. They limited their business to pharmacists and physicians whom they reached through the professional press. Around the turn of the 20th century, however, even ethical firms began to act in questionable ways, sponsoring lavish banquets for physicians and publishing advertisements as if they were legitimate, scientifically proven theories. Manufacturing facilities were not always clean, so the drug industry was a prime target of Progressive campaigns that followed publication of Upton Sinclair's muckraking book *The Jungle,* which was about the meatpacking industry. The Pure Food and Drug Act (1905) created a Bureau of Chemistry to assess fraudulent claims by drugmakers. After more than 100 deaths were attributed to a drug marketed as "elixir of sulfanilamide," which contained antifreeze, in 1935, the U.S. Congress passed the Food, Drug, and Cosmetic Act (FDCA) in 1938. The FDCA created the Food and Drug Administration (FDA), the government agency responsible for determining the safety and efficacy of drugs and approving them for the market. Relying on clinical trials performed by pharmaceutical companies themselves, the FDA determines the level of control to which a drug should be subjected. In 1962, the FDCA was amended in the wake of the thalidomide disaster, and the FDA was charged not only with ensuring the safety and effectiveness of drugs on the market but also with approving drugs for specific conditions. Companies must determine in advance whether a drug has abuse potential or is in any way dangerous to consumers. Despite attempts to predict accurately which wonder drugs will go awry, newly released drugs are tested on only a small segment of potential users. For instance, OxyContin, developed by Purdue Pharma as a prolonged-release painkiller, was considered impossible to tamper with and hence not abusable. Soon known as "hillbilly heroin," the drug became central in the drug panic.

Drug panics are commonly recognized as amplifying extravagant claims: the substance at the center of the panic is portrayed in mainstream media as the most addictive or most dangerous drug ever known. Wonder drugs turn to "demon drugs" as their availability is widened and prices fall. This pattern applies to both legal and illegal drugs. Another major social frame through which drugs are constructed, however, is the assumption that medical and nonmedical use are mutually exclusive.

Medical use versus nonmedical use is a major social category through which drugs have been classified since the criminalization of narcotics. If you are prescribed a drug by a medical professional and you use it as prescribed, you are a medical user. The old divisions between medical and nonmedical use break down when we think about something like cough medicine—once available over the counter with little restriction despite containing small amounts of controlled substances. Today, retail policies and laws restrict the amount of cough medicine that can be bought at one time, and purchasing-age limits are enforced. Availability of cough suppressants in home medicine cabinets led to experimentation by high school students with "chugging" or "robo-tripping" with Robitussin and dextromethorphan-based cough suppressants.

Medication, Self-Medication, and Medicalization

Practices of self-medication blur the medical-versus-nonmedical category. In some places, illegal drug markets have made these substances more widely available than the tightly controlled legal market. Many people who use heroin, cocaine, or marijuana are medicating themselves for depression, anxiety, or disease conditions. They lack health insurance and turn to drugs close at hand. Legal pharmaceuticals are also diverted to illegal markets, leading to dangerous intermixing, as in the illegal use of legal benzodiazepines as "xani-boosters" to extend the high of an illegal drug. The social construction of legal drugs as a social good has been crucial to the expansion of pharmaceutical markets. The industry has distanced itself from the construction of illegal drugs as a serious social problem, but this has become difficult in the face of a culture that has literally adopted a pill for every ill.

Drug issues would look different if other interest groups had the cultural capital to define their shape. Some substances are considered to be essential medicines, whereas others are controlled or prohibited altogether. When drugs are not used in prescribed ways, they are considered unnecessary or recreational. Like the other frames discussed, this distinction has long been controversial.

The history of medicine reveals sectarian battles over which drugs to use or not use, when to prescribe for what conditions, and how to prescribe dosages. The main historical rivals were regular or allopathic physicians, who relied heavily on "heroic" doses of opiates and purgatives, and homeopathic physicians, who gave tiny doses and operated out of different philosophies regarding the mind–body relation. Christian scientists and chiropractors avoided drugs, and other practitioners relied primarily on herbal remedies. As organized medicine emerged as a profession, allopathic physicians became dominant. After World War II, physicians were granted prescribing power during a period of affluence and optimism about the capacity of technological progress to solve social problems. By the mid- to late 1950s, popular attitudes against using a pill for every ill turned around thanks to the first blockbuster drug, the minor tranquilizer Miltown, which was mass marketed to middle-class Americans for handling the stresses of everyday life. Miltown was displaced first by the benzodiazepine Valium and then by the antidepressants Prozac and Zoloft and the antianxiety drugs Xanax and Paxil. A very high proportion of U.S. adults are prescribed these drugs, which illustrates the social process of medicalization.

Medicalization is the process by which a social problem comes to be seen as a medical disorder to be treated by medical professionals and prescription drugs. Many of today's diseases were once defined as criminal or deviant acts, vices, or moral problems. Some disorders have been brought into existence only after a pharmacological fix has become available. During Depression Awareness Week, you will find self-tests aimed at young people, especially at young men. Typically, women medicalize their problems at higher rates, but the men's market is now being tapped. Health care is a large share

of the U.S. gross national product, and pharmaceutical companies maintain the highest profit margins in the industry, so there are huge economic stakes involved in getting you to go to your doctor and ask for a particular drug. Judging from the high proportion of the U.S. population on antidepressant prescriptions at any given time, these tactics have convinced people to treat even mild depression. Antidepressants are now used as tools to enhance productivity and the capacity to balance many activities, bringing up another active frame in the social construction of drugs: the difference between drugs said to enhance work or sports performance and drugs said to detract from performance.

Performance enhancement drugs first arose as a public controversy in relation to steroid use in professional sports and bodybuilding. However, this frame is also present in the discussion of Ritalin, the use of which has expanded beyond children diagnosed with attention deficit and hyperactivity-related disorders. Amphetamines, as early as the late 1940s, were known to have the paradoxical effect of settling down hyperactive children and allowing them to focus, but today the numbers of children and adolescents diagnosed with attention deficit disorder and attention deficit hyperactivity disorder is extremely high in the United States. Stimulants such as cocaine, amphetamines, and caffeine are performance-enhancing drugs in those who are fatigued. Caffeine is associated with productivity in Western cultures but with leisure and relaxation in Southern and Eastern Europe, Turkey, and the Middle East, where it is consumed just before bedtime. Different cultural constructions lead people to interpret pharmacological effects differently. Today, caffeine and amphetamines are globally the most widely used legal and illegal drugs—the scope of global trading of caffeine exceeds even that of another substance on which Western societies depend: oil.

Performance detriments are typically associated with addictive drugs, a concept that draws on older concepts of disease, compulsion, and habituation. With opiates, delight became necessity as individuals built up tolerance to the drug and became physically and psychologically dependent on it. Addiction was studied scientifically in response to what reformers called the opium problem evident on the streets of New York City by the early 1920s. The U.S. Congress created a research laboratory through the Public Health Service in the mid-1930s where alcohol, barbiturates, and opiates were shown to cause a physiological withdrawal syndrome when individuals suddenly stopped using them. The Addiction Research Center of Lexington, Kentucky, supplied data on the addictiveness of many drugs in popular use from the 1930s to the mid-1960s. During that decade, the World Health Organization changed the name of what it studied to "drug dependence" in an attempt to destigmatize addiction. It promoted the view that, as a matter of public health, drug dependence should be treatable by medical professionals whose treatment practices were based on science. This view brought the World Health Organization into political conflict with the expanding drug law enforcement apparatus, which saw the problem as one to be solved by interrupting the international trafficking. Public health proponents lost out during the 1950s, when the first mandatory minimum sentences were

put into place by the 1951 Boggs Act. These were strengthened in 1956. By the end of the decade, law enforcement authorities believed that punishment-oriented drug policies had gotten criminals under control. They were proven wrong in the next decade.

Drug Usage and Historical Trends

Patterns of popular drug use often follow the contours of social change. Several factors tipped the scale toward constructing drug addiction as a disease in the 1960s. The U.S. Supreme Court interpreted addiction as an illness, opining, "Even one day in prison would be a cruel and unusual punishment for the 'crime' of having a common cold" (*Robinson v. California,* 1962). Finding it "unlikely that any State at this moment in history would attempt to make it a criminal offense for a person to be mentally ill, or a leper, or to be afflicted with a venereal disease," the Court stated that prisons could not be considered "curative" unless jail sentences were made "medicinal" and prisons provided treatment. Four decades later, treatment in prison is still sparse, despite jails and prisons being filled with individuals on drug charges. In the late 1960s, civil commitment came about with passage of the Narcotic Addict Rehabilitation Act (1967), just as greater numbers of white middle-class youth entered the ranks of heroin addicts. Law enforcement was lax in suburban settings, where heroin drug buys and use took place behind closed doors, unlike urban settings. New drugs, including hallucinogens, became available, and marijuana was deeply integrated into college life. The counterculture adopted these drugs and created new rituals centered on mind expansion.

During this time, racial-minority heroin users and returning Vietnam veterans came to attention on the streets. In a classic paper titled "Taking Care of Business," Edward Preble and John J. Casey (1969) observed that urban heroin use did not reflect apathy, lack of motivation, or laziness, but a different way to pursue a meaningful life that conflicted with ideas of the dominant social group. Hustling activities provided income and full-time, if informal, jobs where there were often no legitimate jobs in the formal economy. The lived experiences of drug users suggested that many people who got into bad relationships with drugs were simply self-medicating in ways designated by mainstream society as illegal. Members of this generation of heroin users suffered from the decline of social rituals and cultural solidarity that had once held drug-using subcultures together and enabled members of them to hold down legitimate jobs while maintaining heroin habits in the 1950s and early 1960s.

By the 1970s, heroin-using subcultures were more engaged in street crime than they had once been. The decline of solidarity became pronounced when crack cocaine came onto the scene in the mid-1980s at far lower cost than powder cocaine had been in the 1970s. Reading Preble and Casey's ethnographic work, which was done 30 years before the reemergence of heroin use among middle-class adolescents and the emergence of crack cocaine, we see how drug-using social networks met members' needs for a sense of belonging by forming social systems for gaining status and respect. In the 1970s,

the Nixon administration focused the "war on drugs" on building a national treatment infrastructure of methadone clinics distributed throughout U.S. cities. Methadone maintenance has enabled many former heroin addicts to lead stable and productive lives. For a time, it appeared the opium problem might be resolved through public health.

But there is always a next drug, and cocaine surfaced as the new problem in the 1980s. Powder cocaine had been more expensive than gold, so it was viewed as a jet-set drug and was used in combination with heroin. However, a cheaper form called crack cocaine became available in the poorest of neighborhoods during the 1980s. Mainstream media tend to amplify differences between drug users and nonusers, a phenomenon that was especially pronounced in the racialized representation of the crack cocaine crisis. Crack widened the racial inequalities of the war on drugs at a time when social policy was cutting access to health care and service delivery and when urban African American communities were hit hard by economic and social crisis. The pregnant, crack cocaine–using woman became an icon of this moment. Women had long made up about one-third of illegal drug users (down from the majority status of white women morphine users in the early 20th century), and little attention was paid to them. They were represented as a distinct public threat by the late 1980s and early 1990s, however. Despite so-called crack babies turning out not to have long-lasting neurobehavioral difficulties (especially in comparison with peers raised in similar socioeconomic circumstances), "crack baby" remains an epithet. Nor did crack babies grow up to become crack users—like all drug epidemics, the crack cocaine crisis waned early in the 1990s.

Like fashion, fads, or earthquakes, drug cycles wax and wane, and policies swing back and forth between treatment and punishment. Policy is not typically responsible for declining numbers of addicts. Other factors, including wars, demographic shifts such as aging out or baby booms that yield large pools of adolescents, new drugs, and new routes of administration (techniques by which people get drugs into their bodies), change the shape of drug use. Social and personal experience with the negative social and economic effects of a particular drug are far better deterrents to problematic drug use than antidrug education and prevention programs; punitive drug policy; incarceration, which often leads to increased drug exposure; and even drug treatment. Although flawed in many ways, drug policy is nevertheless important because it shapes the experiences of drug sellers and users as they interact with each other.

The War on Drugs and Its Critics

Just as drugs have shaped the course of global and U.S. history, so have periodic wars on drugs. The current U.S. drug policy regime is based on the Controlled Substances Act (1970), which classifies legal and illegal drugs onto five schedules that proceed from Schedule I (heavily restricted drugs classified as having "no medical use" such as heroin, LSD, psilocybin, mescaline, or peyote) to Schedule V (less restricted drugs that have a legitimate medical use and low potential for abuse despite containing small amounts of

controlled substances). This U.S. law implements the United Nations' Single Convention on Narcotics Drugs (1961), which added cannabis to former international treaties covering opiates and coca. The Psychotropic Convention (1976) added LSD and legally manufactured amphetamines and barbiturates to the list. These treaties do not control alcohol, tobacco, or nicotine. They make evident the fact that drugs with industrial backing tend to be less restricted and more available than drugs without it, such as marijuana. Drugs that cannot be transported long distances such as West African kola nuts or East African qat also tend to remain regional drugs. Many governments rely heavily on tax revenue from alcohol and cigarettes and would be hard pressed to give them up. Courtwright (2001) argues that many of the world's governing elites were concerned with taxing the traffic, not suppressing it. Modernity brought with it factors that shifted elite priorities toward control and regulation as industrialization and mechanization made the social costs of intoxication harder to absorb.

Drug regulation takes many forms depending on its basis and goals. Hence, there is disagreement among drug policy reformers about process and goals. Some seek to legalize marijuana and regulate currently illegal drugs more like currently legal drugs. Some see criminalization as the problem and advocate decriminalizing drugs. Others believe that public health measures should be aimed at preventing adverse health consequences and social harms, a position called harm reduction that gathered ground with the discovery that injection drug users were a main vector for transmitting HIV/AIDS in the United States. This alternative public health approach aims to reduce the risks associated with drug use.

Conflicts between those who advocate the status quo and those who seek to change drug policy have unfolded. Mainstream groups adhere to the idea that abstinence from drugs is the only acceptable goal. Critics contend that abstinence is an impossible dream that refuses to recognize the reality that many individuals experiment with drugs, but only a few become problematically involved with them. They offer evidence of controlled use and programs such as reality-based drug education, which is designed to teach people how to use drugs safely rather than simply avoid them. Critics argue that the "just say no" and "drug-free" schools and workplaces have proven ineffective (see the entry on drug testing for a full account of how drug-free legislation was implemented). In arguing that the government should not prohibit consensual adult drug consumption, drug policy reformers have appealed to both liberal and conservative political ideals about drug use in democratic societies. Today's drug policy reform movement stretches across the political spectrum and has begun to gain ground among those who see evidence that the war on drugs War on Drugs has failed to curb drug use.

See also **Addiction and Family; Steroid Use by Athletes; Prescription Drug Costs (vol. 1); Drug Trafficking and Narco-Terrorism (vol. 2); DWI and Drug Testing (vol. 2); War on Drugs (vol. 2); Medical Marijuana (vol. 4); Off-Label Drug Use (vol. 4)**

Further Reading

Burnham, John, *Bad Habits: Drinking, Smoking, Taking Drugs, Gambling, Sexual Misbehavior, and Swearing in American History.* New York: New York University Press, 1994.

Campbell, Nancy D., *Discovering Addiction: The Science and Politics of Substance Abuse Research.* Ann Arbor: University of Michigan Press, 2007.

Courtwright, David, *Forces of Habit: Drugs and the Making of the Modern World.* Cambridge, MA: Harvard University Press, 2001.

DeGrandpre, Richard, *The Cult of Pharmacology: How America Became the World's Most Troubled Drug Culture.* Durham, NC: Duke University Press, 2006.

DeGrandpre, Richard, *Ritalin Nation: Rapid-Fire Culture and the Transformation of Human Consciousness.* New York: W. W. Norton, 1999.

Dingelstad, David, Richard Gosden, Brain Martin, and Nickolas Vakas, "The Social Construction of Drug Debates." *Social Science and Medicine* 43, no. 12 (1996): 1829–1838. http://www.uow.edu.au/arts/sts/bmartin/pubs/96ssm.html

Husak, Douglas, *Legalize This! The Case for Decriminalizing Drugs.* London: Verso, 2002.

Inciardi, James, and Karen McElrath, *The American Drug Scene,* 5th ed. New York: Oxford University Press, 2007.

McTavish, Jan, *Pain and Profits: The History of the Headache and Its Remedies.* New Brunswick, NJ: Rutgers University Press, 2004.

Musto, David, *The American Disease: Origins of Narcotics Control,* 3d ed. New York: Oxford University Press, 1999.

Preble, Edward, and John J. Casey, "Taking Care of Business: The Heroin Addict's Life on the Street." *International Journal of the Addictions* 4, no. 1 (1969): 1–24.

E

EARLY CHILDHOOD EDUCATION

Christopher P. Brown

Early childhood education (ECE) is a controversial and contested field. Since the Progressive Era, debate has existed over what role federal, state, and local government agencies should play in providing families and their young children with access to ECE programs. Within the field itself, there are disputes over issues such as what type of care should be provided to children and their families, what type of training early childhood educators should possess, and what type of instruction should take place and at what age.

Even with a majority of mothers within the United States in the workforce and numerous scientific studies demonstrating the importance of the early years of a child's life on later development and academic performance, society has yet to accept the idea that access to high-quality ECE programs should be a basic right for all children. A key reason for this is the patriarchal norms that dominate the American psyche. In general, society still defines the role of the mother as the primary caregiver of the child, and thus it is her responsibility to ensure that the child is cared for and ready to enter elementary school. Ideally, the mother is married and has husband who is able to support her and her child. While these images have been contested across numerous fronts, the nuclear family is still a key construct in federal policy and is used by many who oppose an expanding role of government into early childhood education.

A Definition of Early Childhood Education

The National Association for the Education of Young Children (NAEYC), the largest professional organization for early childhood educators, defines the early childhood years as those from birth through third grade, and thus this field of practice balances between systems of compulsory and noncompulsory schooling. This entry focuses on early childhood programs that serve children from birth through age five, including kindergarten.

The Status of Early Childhood Education within the United States

For children from birth through age five, early childhood services are offered through a patchwork system of care that includes public and private nonprofit agencies, religious organizations, corporations, for-profit enterprises, family child care providers, and public schools. Programs serve a range of ages, offer various types of services, and instill a range of curricula. For the most part, the early childhood community represents a fractured group of practitioners who are loosely coupled by licensure requirements that emphasize health, safety, and teacher and staff issues rather than academic expectations or curricula.

Government Support

While the debate over the role of government support for ECE continues, federal, state, and local governments do provide some funding for early childhood services and programs. Federal support for ECE exists through three main funding sources: (1) providing funding for child care services as an incentive to mothers who receive public assistance and are trying to enter the labor force; (2) providing funding for or access to services such as Head Start to children whom governmental agencies deem to be at risk due to factors such as poverty, language status, developmental delays, psychological issues, or a combination of these factors; and (3) providing financial support to families and corporations through tax credits.

The passage of the Personal Responsibility and Work Opportunity Reconciliation Act in 1996 altered previous federal social services by mandating recipients to achieve particular goals and reducing the length of time they could receive support, which increased the need for early childhood services for these families. For instance, the Temporary Assistance for Needy Families block grant replaced programs such as Aid to Families with Dependent Children, provides states with funds that they are to use to assist families in taking care of their children at home, and provides child care for parents so that they can participate in job training. The Child Care and Development block grant provides funds to states to subsidize the child care expenses of low-income working parents, parents who are receiving training for work, and parents in school.

The most well known federally funded early childhood program is Head Start, which operates through the Department of Health and Human Services (DHHS). The DHHS directly funds local grantees to provide Head Start programs to promote children's school readiness by enhancing their social and cognitive development. Head Start grantees are to offer children and their families' educational, health, nutritional, social, and other services.

Finally, the federal government offers two types of tax credits: (1) the dependent care tax credit for families who use out-of-home ECE services (which began as the child care tax deduction in 1954 and converted to a child care tax credit in 1972) and (2) tax credits for employers who establish or provide access for their employees to child care services (which began in 1962).

At the state and local level, funding is more eclectic. The availability of programs and services that extend beyond federal funding depends on the individual state or local community. Some (but not all) state governments supplement these federal funds, create their own programs for targeted populations, and encourage local participation in the process.

The most common form of state involvement in ECE is kindergarten, and the fastest growing program area among the states is prekindergarten (pre-K) for four- and sometimes three-year-olds. As of 2009, only 8 states require children to attend kindergarten, while the remaining 42 states require school districts to offer kindergarten. Forty states offer some form of pre-K funding to local school districts and community organizations, and three states—Oklahoma, Georgia, and Florida—offer all four-year-old children in their states access to prekindergarten, typically referred to as universal prekindergarten (UPK). Many states, such as New York, Illinois, Louisiana, and Iowa, are taking steps toward UPK. Other states, such as Maine, Oklahoma, Wisconsin, and West Virginia, offer pre-K for all through their school funding formulas.

Making the Case for Further Government Support of ECE

Those who support the expansion of federal, state, and local early childhood services typically make their case through two interconnected lines of reasoning. The first frames ECE as an investment. The second sees ECE as a necessary step to ready children for the increasing demands of elementary school.

The investment argument emerges from a collection of longitudinal studies that examine the effects of specific early childhood programs on a child's life. This research demonstrates that children who participate in high-quality early childhood programs are less likely as students to be retained or to require special education service and are more likely to graduate from high school. As adults, these children are more likely to be employed and not require social services and are less likely to be incarcerated (e.g., Reynolds, Ou, and Topitzes's 2004 analysis of the effects of the Chicago Child-Parent Centers). As a result, every dollar that is invested in high-quality ECE programs will

save taxpayers from having to spend additional monies on supplemental education and social services for children through their lifetimes.

The readiness argument, which follows a similar line of reasoning as the investment argument, states that, in order to have students ready for the increasing demands of elementary school, government agencies need to provide families with access to high-quality early education services to ensure that their children are ready to learn.

Making the Case for Less Government Support of ECE

Those who oppose expanding the role of government also frame their argument through two lines of reasoning. The first, which takes a libertarian approach, contends that the government should limit its social responsibilities in taking care of children, except in the direst circumstances, and allow the market to deem the need and role of ECE (e.g., the Cato Institute). The second, which takes a more conservative approach, argues that the government should implement policies that encourage family members to stay home and care for their children, such as tax credits for stay-at-home family members or incentives for corporations to encourage part-time employment.

EARLY CHILDHOOD EDUCATION ORGANIZATIONS: PRO, CON, AND MORE

The following is a sample of organizations active in the debates surrounding early childhood education. Links to information about state early childhood education programs and family participation in such programs are provided.

Professional and Research Organizations That Support ECE

- National Association for the Education of Young Children: http://www.naeyc.org
- National Institute for Early Education Research: http://www.nieer.org
- Pre-K Now: http://www.preknow.org
- Foundation for Child Development: http://www.fcd-us.org
- Association for Childhood Education International: http://www.acei.org

Organizations That Oppose the Expansion of ECE

- Cato Institute: http://www.cato.org
- Reason Foundation: http://www.reason.org
- Concerned Women for America: http://www.cwfa.org

Statistics on Family Participation in ECE Programs

- National Center for Education Statistics: http://nces.ed.gov

Information about State Early Childhood Programs and Kindergarten

- Education Commission of the States: http://www.ecs.org

Early Childhood Education from the Progressive Era to Today

As the Progressive Era took shape, ECE emerged along two streams of care: the kindergarten movement and the day nursery movement. Within these two movements, issues of gender, class, and cultural affiliation not only affected the goals of each program but also which children and their families had access to these care and education services.

Kindergarten

The U.S. kindergarten movement began in 1854, when Margarethe Meyer Schurz founded the first kindergarten in Watertown, Wisconsin. These early kindergartens were supplemental programs that were designed to foster a child's growth and development and to provide mothers with a break from their children. (See Beatty 1995 for a detailed history of the development of kindergarten in the United States.)

Public kindergarten emerged in the 1870s through the work of individuals such as Susan Blow in St. Louis and spread across numerous cities. As these programs became part of education systems across the United States, stakeholders implemented them to achieve many goals—all of which framed kindergarten as a necessary and not supplemental service. For instance, some supporters saw these programs as a form of child rescue; others saw it as means to Americanize the influx of immigrants who were arriving in the United States; and many viewed these programs as form of preparation for elementary school. These programs steadily grew, because education and community stakeholders began to see more children as being unprepared for elementary school, and, thus, this construct of the deficient child infuses itself within the need for an expansion of early childhood services.

The idea of children following a normal developmental path emerged out of the work of child psychologists such as G. Stanley Hall, who began his child study experiments in Pauline Shaw's charity kindergartens in Boston. Hall's studies led him as well as many other psychologists to question what type of experiences should be taking place in kindergarten as well as in the home to prepare children for a successful life.

Day Nurseries

Prior to kindergarten or elementary school entry, the dominant understanding of children's early childhood experiences was that their mothers were to raise them in their homes. The day nursery movement emerged as an intervention for mothers who had to seek employment to take care of their families so that they would not have to institutionalize their children. These nurseries emerged as the philanthropic projects of wealthy women who wanted to assist working poor and immigrant mothers in getting back on their feet so that they could take their rightful place in the home. Day nurseries emphasized patriotism and hygiene as part of their instruction and only sought governmental assistance for regulatory purposes to improve nursery program conditions. Even though these programs had less-than-appealing reputations, the need for their

services far outstripped their availability. In most instances—particularly in the South, rural areas, and for African American families—kith and kin provided the majority of care for these families. Ironically, many of these working mothers struggled to find care for their own children while working for wealthier families as the caretakers of their children. (See Michel 1999 for a detailed history of the day nursery movement and the positioning of mothers and women in general within this and other debates over the role of government in child rearing and education.)

Nursery Schools

Academically, the increased interest in understanding child development by the work of theorists and researchers such as Hall, Gesell, Freud, Piaget, and others led to the growing child study movement among universities. For instance, the Laura Spelman Rockefeller Memorial Foundation awarded significant sums of money to several colleges and universities to establish child study institutes. The institutes' lab schools began the nursery school movement, and middle-class families became attracted to the notion that science can enhance their child's development. Furthermore, this scientific emphasis on child development extended the view of ECE beyond the traditional academic notion of cognitive development that dominates elementary education. Early education included the child's social, emotional, physical, and cognitive development. This expanded view of learning caused conflict between early childhood educators and their elementary school colleagues as these programs became part of the elementary school environment.

The Federal Government Becomes Part of Early Childhood Education

The onset of the Great Depression resulted in a collapse of the day nursery movement for working mothers, and a majority of the ECE programs that remained were supplemental nursery programs used by middle-class families. In 1933, the Federal Emergency Relief Administration (FERA) changed this by starting a federally funded nursery school program as a means of employing schoolteachers and school staff. The custodial care of children was a secondary goal. The program was incorporated into the Works Progress Administration in 1934, when FERA was terminated.

As the Great Depression ended and World War II began, the funding for this program dwindled. However, the need for women's labor to support the war industry led to the Lanham Act, which funded over 3,000 child care centers to care for children whose mothers worked in defense-related industries.

When the Depression and the war ended, federal support for these custodial programs subsided, and mothers were to return home to care for their children. However, the kindergarten movement had come to be seen by education stakeholders as a much-needed vehicle for preparing children for school. Kindergarten survived these two national crises, and, by the 1940s, it became a permanent fixture of many school systems across the United States.

Project Head Start

For the next 20 years, the federal government abstained from funding ECE programs until the implementation of Project Head Start in 1965. This project emerged from the Economic Opportunity Act and the Elementary and Secondary Education Act as a part of the Johnson Administration's war on poverty.

This legislation shifted the role of the federal government in developing ECE and K–12 policy within the United States. Federal policymakers created legislation that defined the role of the federal government in ECE as a provider of intervention services that could alter the academic trajectory of particular populations of children. These policies identified the root cause of academic failure, which leads to economic failure, in the child's home environment. By identifying educational attainment as the means by which this cycle of poverty can be broken, policymakers defined the central role of ECE as readying students for school. ECE became a tool for intervention.

As soon as the federal government took on these roles in ECE and K–12 education, controversy arose. For instance, the Nixon administration responded to Johnson's Great Society education policies by creating the National Institute of Education, which investigated the return that society received for its investment in education. Furthermore, Nixon vetoed the Comprehensive Child Development Act of 1971, which was to expand the federal government's funding of child care and education while creating a framework for child services. Additionally, studies such as the Westinghouse Learning House's evaluation of Head Start in 1969 suggested that any gains in the IQs of students who participated in the program quickly faded, which raised concerns over the effectiveness of these government-funded programs.

Researchers responded to these critiques of Head Start by arguing that, while increases in IQ might not be sustainable, students who participated in such programs were more successful academically and socially as they continued through school than those students who did not receive these services. These longitudinal studies, which examined a number of early childhood programs other than Head Start, spawned the investment argument, which is outlined above.

This argument shifts the premise for funding ECE programs slightly. Rather than break the cycle of poverty for others, funding programs will save taxpayers money. Thus, this argument for ECE deemphasizes assisting families to be able to take care of their children at home, and, rather, it contends that experts in ECE can design and implement programs that prepare the child, and in some cases the family, for success in compulsory schooling and later life.

Standards for Early Childhood Education

The emphasis on student performance that emerged during the Reagan administration put pressure on early childhood educators to align their practices with K–12 education. While such pressure on ECE programs has been around since the 1920s, particularly for

kindergarten programs (see Beatty 1995), organizations such as NAEYC began to produce position statements and documents that defined what empirical research identified to be appropriate teaching, learning, and assessment experiences for young children.

Although these empirically based responses deflected the pressures of accountability for children until later in their academic careers, recent federal and state standards-based accountability reforms have caused education stakeholders to again scrutinize what types of experiences students are having prior to their entry to elementary school. For instance, policymakers and early childhood stakeholders are debating the role of early learning standards, readiness assessments, and literacy and math instruction in early childhood programs.

Additional reforms that stakeholders are considering to improve children's preparation for elementary schooling include requiring student participation in full-day kindergarten programs, expanding prekindergarten services, improving the quality of early childhood programs, increasing training requirements for ECE teachers, and aligning early childhood programs across the field as well as with the K–12 education system. (See Cryer and Clifford 2003 for discussions surrounding ECE policy.)

Whatever policies emerge, the recent history of education reform demonstrates that these reforms will be linked to increased accountability expectations, making the expansion of the field dependent on the ability of ECE programs to improve student performance.

An added question that is somewhat unique to ECE is who should be providing these services. For-profit centers have a long history in ECE and provide care for a significant population of children and their families. These providers include national and international companies (e.g., the Australian-based publicly traded for-profit child care corporation ABC Learning, which is the world's largest provider of child care services and operates over 1,100 centers in the United States). Additionally, nonprofit and church-based centers provide a large portion of infant and toddler care for families. Thus, expanding or reforming early childhood services involves numerous stakeholders, and simply adding programs to the nation's public schools or implementing unfunded mandates has the ability to upset many who support as well as provide care for young children and their families.

Conclusion

ECE has a long and unique history in the United States. Those who support the field have framed its need in numerous ways. Current advocates argue that ECE is a necessity for families in which the primary caregiver works outside the home, is a smart investment of public resources, or is a basic right for all children. Those who oppose its expansion contend that the government agencies should not be involved in child rearing, should not pay for additional social services, or should implement policies that encourage families to stay at home and take care of their children. Either way, the battle

over ECE boils down to how stakeholders perceive the role of government agencies in financing the care and education of young children, and thus the debate will continue as long as there are children and families who need or desire out-of-home care.

See also **Child Care; Government Role in Schooling**

Further Reading

Beatty, Barbara, *Preschool Education in America: The Culture of Young Children from the Colonial Era to the Present.* New Haven, CT: Yale University Press, 1995.

Cryer, Debby, and Richard M. Clifford, eds., *Early Education and Care in the USA.* Baltimore: Brookes Publishing, 2003.

Farquhar, Sandy, and Peter Fitzsimmons, eds., *Philosophy of Early Childhood Education: Transforming Narratives.* New York: Wiley-Blackwell, 2008.

Fuller, Bruce, et al., *Standardized Childhood: The Political and Cultural Struggle over Early Education.* Stanford. CA: Stanford University Press, 2007.

Goffin, Stacie G., and Valora Washington, *Ready or Not: Leadership Choices in Early Care and Education.* New York: Teachers College Press, 2007.

Michel, Sonya, *Children's Interests/Mothers' Rights: The Shaping of America's Child Care Policy.* New Haven, CT: Yale University Press, 1999.

Reynolds, A. J., S. Ou, and J. Topitzes, "Paths of Effects of Early Childhood Intervention on Educational Attainment and Delinquency: A Confirmatory Analysis of the Chicago Child-Parent Centers." *Child Development* 75 (2004): 1299–1328.

Siegel, Charles, *What's Wrong with Day Care? Freeing Parents To Raise Their Own Children.* New York: Teachers College Press, 2000.

EATING DISORDERS

Cynthia Childress

Diagnosis and treatment of eating disorders typically are relegated to psychiatry, although cultural critics and feminists have pointed out that culture, rather than merely individual psychology and home environment, may also play a role in causing eating disorders. The majority of people diagnosed with eating disorders are white women, although the number of eating disorder patients that are women of color and men is growing, which further complicates the debate on the cultural versus psychological causes.

Background

Eating disorders—most notably anorexia nervosa and bulimia nervosa—are common in Western cultures, although they occur with increasing frequency in poor and non-Western societies as well. Anorexia nervosa was first considered a disease, and one specific to women, during the mid-1800s; the first cases occurred in educated, middle-class white women. Social historicists such as Joan Brumberg, author of *Fasting Girls* (1988),

see the rise in eating disorders among women at that time as a silent protest against expectations for the roles those women would play in society as passive, submissive women confined to the private sphere. Considering not only anorexia but also bulimia and other related eating disorders, explanations for their occurrences in women range from the pressure of having so many options that historically had not been available to women and the fear of making the wrong choices or failing to live up to expectations, to desperation to be as thin as possible in order to meet and exceed the social norms for female beauty, to more individual concerns such as hating one's body because of sexual abuse or punishing the body because of a lack of coping method for feelings of anxiety, anger, or even happiness and success.

These ideas about eating disorders inform and are informed by the clinical criteria for determining whether someone has an eating disorder and what kind is established in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), a book of diagnostic criteria for mental illnesses compiled by the American Psychiatric Association. Anorexia was the first eating disorder to be included in the DSM in the mid-1950s. The DSM added bulimia as a distinct category in 1980, and in 2000, a new category, eating disorder not otherwise specified, was added to assist doctors in diagnosing those who suffer from disordered eating but do not meet all the criteria for anorexia or bulimia. There are two other disorders that are not recognized in the DSM: binge eating disorder (BED) and compulsive overeating disorder (COE), both of which are thought by some professionals to deserve their own entries in the DSM's next edition, which will appear in 2013. Sufferers of both disorders are characterized by periodically going on large binges without purging and tend to be overweight, but the difference between BED and COE is that individuals with COE have an "addiction" to food. Both types of individuals, however, are said to use food and eating as a way to hide from emotions, to fill inner voids, and to cope with daily stresses and problems. Common for both disorders is a desire to hide behind the physical appearance of obesity, using it as a blockade against society.

Debates on the Causes of Eating Disorders

Psychological Explanations

There are many theories explaining how and why women develop eating disorders. Most explanations before the 1980s and 1990s constructed the problem and solution as being largely individual for each patient and her immediate family environment. In the classic psychoanalytic model, eating disorders are manifestations of a woman's psychosexual development. In that case, a woman or girl refuses to eat because she rejects her womanly body and what its health represents—sexual fertility. Along this line of thinking, then, a compulsive overeater may seek to cloak her sexuality in body fat.

These ideas subtly speak to cultural expectations for women's bodies and the judgment of what is beautiful or desirable in a woman, causing a second generation of critics

to notice that the way in which social systems operate to reinforce negative messages to women about their bodies point toward patriarchy, defined as a system of interrelated social structures and practices in which men dominate, oppress, and exploit women. These social values are specific to our capitalistic society, in which the so-called cult of thinness supports food, diet, and health industries. "Weight concerns or even obsessions are so common among women and girls that they escape notice. Dieting is not considered abnormal behavior, even among women who are not overweight. But only a thin line separates 'normal' dieting from an eating disorder" (Hesse-Biber 1996). Twiggy, the waifish British fashion model of the 1960s, and the popular Mattel doll, Barbie, are often cited as icons of the impractical expectations society has for the size of women's bodies. It is commonly known that the average model during the 1950s wore a size 8 and the average woman a size 10; today the average model wears a size 2, and the average woman now wears a size 12. The rise in disparity between model size and real women's bodies parallels the rise of eating disorders, although experts are divided on the degree to which society is responsible. Joan Brumberg and most leaders of the eating disorder conversation agree that these images play a key role in the development of eating disorders, but psychiatrists say these coincidences might instigate disordered eating behaviors but are not enough to completely explain the development of the diseases anorexia and bulimia.

Biological Explanations

In the biological model, eating disorders are related to depression and bipolar disorder—both of which may be caused by chemical imbalances and thus corrected with medication. The only drug that has been approved by the U.S. Food and Drug Administration for the treatment of eating disorders is Prozac, to be used in bulimia patients. There are

HOW PREVALENT ARE EATING DISORDERS?

According to the National Association of Anorexia Nervosa and Associated Eating Disorders:

- Over one-half of teenage girls and nearly one-third of teenage boys have tried to control their weight by skipping meals and fasting, vomiting, and taking laxatives.
- For young women between 15 and 24 years old who suffer from anorexia nervosa, the mortality rate associated with the illness is 12 times higher than the death rate of all other causes of death.
- One percent of adolescent girls have anorexia, 4 percent of college-aged women have bulimia, and 1 percent of all American women suffer from binge eating disorder.
- Twenty percent of untreated eating disorder cases result in death, and 2 to 3 percent of patients treated for eating disorders do not survive.

many studies into medication for anorexic patients, and some trials have yielded individual successes, but because the anorexic's body chemistry is abnormal because it is in starvation mode, many drugs have little or no effect. Hesse-Biber criticizes the disease model of eating disorders, because it locates the problem as being within the individual rather than being outside oneself. She acknowledges that the disease model is good in that it frees patients from guilt, but she notes that this model benefits the health care industry—replacing a potential feminist view that society needs to be healed with a medical view that the victim needs professional treatment.

Family and Home Environment Explanations

Yet another model posits that eating disorders arise as symbolic representations of family dynamics. In this case, a power struggle between parent and child, especially the mother, may motivate a girl to find power over one thing she can control—what she eats. In this case, treatment and diagnosis involve the entire family. Feminist psychoanalyst Kim Chernin (1981) argues that eating disorders primarily develop as a response of overly controlling parents or environments that do not nurture a girl's journey from childhood to womanhood; psychiatrist Mary Pipher (1994) views eating disorders as responses to our culture's social dictate that a good woman is passive, quiet, and takes up very little space. Chernin and Pipher do agree, however, that eating disorders develop in situations that prevent the victim from saying or acknowledging to herself what she thinks, feels, or wants. In this way, then, eating disorders can be seen as survival strategies in response to emotional, physical, and sexual abuse; sexism; classism; homophobia; or racism—in other words, responses to trauma. Contemporary researchers and scholars mostly agree that eating disorder behaviors are coping mechanisms that give the sufferers a feeling of empowerment. By refusing to eat, bingeing, or bingeing and purging, a woman gains some influence over her environment. Control over the body becomes a substitute for control a woman may wish to have over her economic, political, or social circumstance. Thus, weight loss or gain may not be a primary motivation for disordered eating.

Increased Recognition of Eating Disorders among Racial Minorities

African American singer Dinah Washington died as result of an overdose of diet pills and alcohol; Puerto Rican poet Luz Maria Umpierre-Herrera writes about her struggle with anorexia; and African American writer Gloria Naylor writes about generations of eating disordered women in *Linden Hills* (Thompson 1996). According to Becky Thompson's research on minority women, many of them were taught to diet, binge, and purge by older relatives who had done so themselves, which suggests that, although statistics show that eating disorders are on the rise in U.S. minority cultures, this may simply be the result of more careful research rather than an actual sharp increase. Health professionals assume and are taught that eating disorders are a white women's disease,

so in women of color eating disorder symptoms would be dismissed or treated as something else. Particularly because Hispanic and black women are culturally stereotyped as plump or obese, whereas Asian women are stereotyped as thin, doctors would ignore those visual cues as signs of eating problems. Exacerbating this situation is that most minority women also see eating disorders as a "white" problem, so they are more reluctant to recognize signs of disorder in themselves or seek help. This explains why most women of color who are treated for eating disorders are in more severe states than white women with the same disorders.

Women in African American and Hispanic communities have traditionally been larger than women in white communities, and minority communities have been more tolerant and even celebratory of the large female body as a symbol of health and wealth. One explanation for their larger size is food custom, but researchers have found that women in those communities also exhibit compulsive overeating behaviors, using bingeing as a way to cope with stress. Bingeing then is a way to find temporary relief from oppressive social and economic conditions such as sexual abuse, poverty, racism, and sexism. Since the 1980s, eating disorder diagnoses, particularly of anorexia, have risen among the African American population. Some experts note that this rise parallels the increasing affluence of middle-class black families, who find themselves embracing traditionally white values, including the obsession with thinness. This trend is also noted among upwardly mobile young Hispanic women and adolescents who see thinness as a key to success. A study conducted among a diverse selection of college-age women revealed that minority women who identified with their ethnic groups had fewer obsessions with thinness and realistic body goals compared to women who rejected their cultural identities and also subscribed to the thin ideal for themselves, resulting in a much larger percentage of eating-disordered behaviors (Abrams, Allen, and Gray 1993).

Increased Recognition of Eating Disorders among Men

The ratio of women to men with eating disorders is 9–1, although some researchers suspect that more men suffer from eating disorders and go untreated, particularly with bulimia, because it is easier to hide than anorexia (Crawford 1990). Like women of color, men with eating disorder symptoms may go unnoticed by physicians because they do not fit the classic diagnostic and treatment models, which tend to focus on women. Men who are more vulnerable to developing eating disorders participate in athletic activities that have regular weigh-ins, such as wrestling. Disordered eating and overexercising is sometimes ordered by a coach so that a team member will be a certain weight for a tournament, and this unnatural obsession with weight and weight control can lead to the wrestler using starvation as a means of weight control. Gay men may also be more susceptible to eating disorders because of the importance of appearance in gay culture. In a study comparing gay and straight men, homosexual men were found to be more preoccupied with their body sizes and appearances and more likely to suffer from body

FASHION WEEK IN MADRID

Madrid's 2006 Fashion Week was the first of its kind to place a ban on models with a body mass index below 18, a move that Australia's Fashion Week followed. A 5-foot 9-inch model weighing 125 pounds would have a body mass index of 18, which is the lowest healthy body mass range. This ban resulted in the turning away of 30 percent of the models scheduled to participate in the fashion week. Madrid's decision was a result of lobbying from groups such as Spain's Association in Defense of Attention for Anorexia and Bulimia, which argues that young women develop eating disorders as a result of trying to be as thin as the underweight fashion models. One turning point in the debate over model size for Madrid was the death of 22-year-old South American model Luisel Ramos, who suffered a heart attack after stepping off a runway in August of that year. She had been counseled that her career would jump start if she lost weight, so for three months she had been on a diet of green leaves and Diet Coke. Reactions to the ban from the fashion industry were mixed. Some designers refused to participate in Madrid's Fashion Week; others lauded the spirit of the ban. Most felt, though, that the fashion industry was being scapegoated for mental illnesses, when fashion merely reflects values society already holds. For eating disorder activists, this ban was seen as a major step toward having the fashion industry represent beauty at healthy weights and also having it assume a degree of responsibility for the health of its models, who so often starve themselves and are told by designers and agents to lose weight.

dysmorphia than their heterosexual counterparts (Crawford 1990). Experts forecast that eating disorders in all men will continue to rise as the marketing of men's health and beauty products becomes increasingly aggressive with "metrosexual" men, straight men who are overly concerned about their grooming, clothing, and overall appearance; and they, too, seek to make their bodies conform to the thin standard already set for women (Patterson 2004).

Conclusion

Debates will continue regarding whether eating disorders stem from biological, psychological, environmental, or structural factors. What researchers do know is that women of various socioeconomic backgrounds are disproportionately represented in the diagnosis and treatment of eating disorders, as defined by the DSM. Many eating disorder activists argue that the cult of thinness requires a more critical look at the culture at large, including gendered patterns of family life, girls' and boys' socialization, and the effects of various forms of oppression on individuals. Thus some activist-scholars argue that stopping the cycle of girls being socialized into the cult of thinness is a public, not a private, enterprise (Hesse-Biber 1996). Activism such as boycotting companies and products whose marketing includes the use of the thinness ideal is one approach that has been used by the Boston-based Boycott Anorexic Marketing group, which was effective

during the mid-1990s in getting Coca-Cola and Kellogg to portray athletic instead of waifish women. More recently, this kind of activism has been taken on by marketers themselves, particularly with Dove's ad campaign that features women's bodies with "real curves." Groups such as the Eating Disorder Coalition have been lobbying the U.S. Congress to provide more money for eating disorder research and to force insurance companies to cover medical treatment. In addition, new research results continue to be released that points to other factors contributing to the prevalence of eating disorders among white, middle-class women as well as among men of various backgrounds and women of color—research that will surely shape future debates on their causes.

See also **Mental Health; Self-Injury and Body Image; Marketing to Women and Girls (vol. 1)**

Further Reading;

Abrams, S. K., L. Allen, and J. Gray, "Disordered Eating Attitudes and Ethnic Identity." *International Journal of Eating Disorders* 14 (1993): 49–57.

Bruch, Hilde, *The Golden Cage: The Enigma of Anorexia Nervosa.* Cambridge, MA: Harvard University Press, 1978.

Brumberg, Joan Jacobs, *Fasting Girls: The History of Anorexia Nervosa.* Cambridge, MA: Harvard University Press, 1988.

Chernin, Kim, *The Obsession: Reflections on the Tyranny of Slenderness.* New York: Harper Perennial, 1981.

Crawford, David, *Easing the Ache: Gay Men Recovering from Compulsive Disorders.* New York: Dutton, 1990.

Greenfield, Laura, *Thin.* HBO documentary. 2006.

Hesse-Biber, Sharlene, *Am I Thin Enough Yet? The Cult of Thinness and the Commercialization of Identity.* New York: Oxford University Press, 1996.

Maine, Margo, *Body Wars.* Carlsbad, CA: Gurze Books, 1991.

National Association of Anorexia Nervosa and Associated Disorders, 2010. http://www.anad.org

Patterson, Anna, *Fit to Die: Men and Eating Disorders.* Thousand Oaks, CA: Sage, 2004.

Pipher, Mary, *Reviving Ophelia: Saving the Selves of Adolescent Girls.* New York: Random House, 1994.

Rumney, Avis, *Dying to Please: Anorexia, Treatment and Recovery.* Jefferson, NC: McFarland, 2009.

Thompson, Becky W., *A Hunger So Wide and Deep: A Multiracial View of Women's Eating Problems.* Minneapolis: University of Minnesota Press, 1996.

ELDER ABUSE

Lasita Rudolph

Elder abuse is a serious issue that affects families and society. Elder abuse involves the acts of commission (abuse) and omission (neglect), as do other definitions of domestic violence. Unlike spouse and child abuse, which were defined as key social issues in

the 1960s, elder abuse did not surface as a social problem until the late 1970s in congressional hearings examining the status of aging in the United States. The awareness generated through government and the media brought attention to the phenomenon. There are many questions about the prevalence of elder abuse and the vulnerability of certain categories of elders to abuse.

One thing that makes elder abuse difficult to discuss is that it is difficult to measure. Because domestic issues remain largely private, the true prevalence of elder abuse is not known. The best estimates, based on national samples and state data, indicate that about 5 percent of persons over age 65 will be abused in some way. It seems that spouse abuse is the most common abuse of those past retirement age, although abuse by adult children does contribute to the problem. Given the dependencies that most aged persons have, their reliance on others sets the stage for exploitation. Elders are potential victims whether they are being cared for in their own homes by family or at a nursing home by paid staff. There is evidence to suggest that, as today's elders are more likely to have retirement accounts and pension plans, their likelihood of being a victim of financial abuse is increasing.

What Is Elder Abuse?

Elder abuse is the sometimes intentional, but often times unintentional, mistreatment of a person over the age of 65. Elder abuse involves several aspects, including financial, physical, and emotional abuse. A special subcategory of physical abuse is sexual abuse. An inclusive definition of elder abuse would also consider neglect and self-neglect as additional aspects. Abuse of elders can lead to a worsening of the elder's health or even to death. Questions surround the causes of elder abuse as well as the ways that treatment and prevention should be approached. The different categories of abuse do not affect all elders in the same way.

Types of Elder Abuse

Physical Abuse

Physical abuse can be any of the following: pushing, kicking, slapping, choking, beating, punching, pinching, throwing, hitting, paddling, shoving, inappropriate restraints, assaulting, or harming with hand or objects. This force can lead to pain, injury, impairment, and disease of an elderly person. Given that humans get weaker and frailer as they age, abuse of elderly persons is particularly likely to result in injury. Additionally, these persons are less likely to be strong enough to defend themselves from attack and may even be confined to a wheel chair or bed due to their physical conditions. For the oldest old persons, age 85 and over, the consequences of physical beatings can be severe. The physical indicators of abuse are dehydration, malnourishment, sprains, dislocations, bite marks, internal injuries, unexplained bruises and burns, welts, skull fractures, lacerations, black eyes, and abrasions. Older persons, due to dementia or other memory-impairing

conditions, may be unable to explain how their injuries occurred and may find it difficult to get assistance or intervention from law enforcement.

Sexual Abuse

Sexual abuse is any sexual activity performed on an elder without consent. Sexual abuse can be sexual intercourse, anal intercourse, or oral sex. Other sexual behaviors, however, can also be termed abuse if the elder is not a willing participant or is unable to provide consent. These activities include displaying one's genitals or making the elder display his or hers, watching while the elder does sexual things, or making the elder watch while the perpetrator does sexual things. It can even include watching pornography, taking pictures, and sex talk. The most likely perpetrator of sexual abuse is a family member. This is because the elder trusts the family member and allows closeness without knowing that the family member wants to do harm. It is also possible for an elder to be abused in a nursing home or for an outside caregiver to be the perpetrator of sexual abuse, but these cases are more limited. An elder with a severe disability is more likely to be abused because of dependency on the help of the nursing home staff or outside caregiver. Indicators of sexual abuse include genital or urinary irritation, frequent infections, vaginal or anal bleeding, bruising on the inner thighs, sexually transmitted diseases, depression, conversation regularly is of a sexual nature, severe agitation when being bathed or dressed, agitation during medical examination, and sudden confusion. Depending on the circumstances, sexual abuse can involve both physical and emotional elements.

Emotional Abuse

With emotional abuse, the elder is distressed, upset, depressed, experiencing withdrawal, and in emotional pain in this nonverbal or verbal situation. When elders are emotionally abused they become unresponsive, fearful, lack social interests, and evade others. Emotional abuse is equally likely to be perpetrated by a family member, nursing home staff, and outside caregivers. Elders may be particularly prone to emotional abuse, because they question their role in the family and society. Many persons perceive that, as they age, they are more of a burden on the family and have a harder time fitting in. They may feel that they deserve any treatment they receive because they cannot keep up mentally and physically with the younger generations. Some common types of emotional abuse include ignoring the elder, harassment and intimidation, insults and yelling, embarrassing or humiliating the elder, odd forms of punishment, and blaming. Also included are isolation from others or activities and not attending to the elder when necessary.

Financial Abuse

Financial abuse is the improper or illegal use of an elder's money and property. The financial abuser can be anyone but is most likely a family member because family members have more direct access to aged family members' resources. For various practical

reasons, including fear of money management, tax savings, and inheritance, among others, elders may ask family members to tend to their financial concerns. Sometimes this takes the form of a power of attorney, where the family member is the legal guardian of the older person's estate and is authorized to act as his or her agent. Other times the arrangement is informal, and the older person just asks someone else to keep his or her bank accounts and take care of daily financial transactions. Government estimates indicate that approximately 5 million elders are victims of financial abuse each year, with most cases going unreported.

A dishonest person can take advantage of the elder, misinforming him about his assets or using the money for one's own needs. The person may even get the elder to consent to such things through threats or constantly harassing the elder about her financial status. Elders can be financially abused in many ways. They include exploitation and fraud by both primary and secondary contacts, signature forging, embezzling, and theft of property. Certain areas of fraud have targeted older persons and include home repair fraud, insurance fraud, medical fraud, telemarketing, and confidence games. Another egregious component is nursing home theft. Considering that most very old people are women, who often have fewer funds available at retirement than do men and often relied on their husbands to manage their funds prior to his death, the costs of financial abuse can be very high.

Neglect

Neglect can occur when the elder is in isolation, has been abandoned, or a caregiver refuses to provide the elder with essential needs, including physical and emotional needs. Just as neglect is the most frequent type of child abuse, neglect is considered the most common type of elder abuse. Self-neglect is also a problem with elders. This can occur when an elder neglects his own needs. There are two types of neglect: active and passive. Active neglect is defined as refusal or failure to fulfill the needs of the elder. This would be intentional neglect. Passive neglect is also failing to fulfill an elder's needs, but this type is unintentional. It has been known to occur in nursing homes that do not have the most qualified staff or the resources to meet the needs of the elder residents. Neglect is also done by family members and by outside caregivers. Examples of neglect include denial of needs such as food and water, lack of assistance with food and water (if required), improper supervision, inappropriate clothing for the type of weather, or inadequate help with bathing or other hygiene practices. Other examples are lack of access to the toilet, lack of diaper changing, strong smell of urine or feces, and physically restraining the elder without medical cause. Finally, refusing to seek required medical care for the elder is a type of neglect.

Brief History

Elder abuse first appeared on the public radar in the 1970s. However, many professionals did not care much about abuse of the elderly at the time and were more concerned with

child abuse and abuse against women. Consequently, elder abuse was not taken very seriously. There was inadequate knowledge about the scope of the issue and what to do for such situations. There were few ways that family professionals could intervene in such cases. In the late 1970s, Congress began to hear of "granny battering" and became interested in this issue. As groups began to testify in Congress in defense of older Americans, the tide began to turn. In 1989, the Older Americans Act was proposed. While there was not a lot of money available to assist in stopping elder abuse, it was recognized as a problem, and, over time, more and more people became interested in this issue. The media helped to spread the word about elder abuse, getting the attention of medical professionals and the criminal justice system. Researchers began to attend to the issue as well. However, the extent of the problem remains hidden. The best estimates indicate that for every abuse case reported, there are about five more that are not reported.

Controversies in Elder Abuse

Although it is generally accepted that abuse is a problem in the culture that needs to be eradicated, the paths to decreased violence are often contradictory. Often experts suggest that one cannot end abuse without knowing the causes of abuse. Elder abuse shares some links with domestic violence causes in general, but because of the intergenerational nature of the abuse, there are some important differences. Another area of controversy involves whether gender plays a role in the status of both victim and perpetrator. Other questions remain as to the best course of action when dealing with older persons who have been abused and the role that the state plays in providing assistance to them.

Contributing Factors in Elder Abuse

There have been wide-ranging suggestions as to the factors that contribute to elder abuse. Not only have the ideas of "violence as a way of life" in U.S. society been blamed, but the cultural belief in the value of youth and devaluing of elderly, referred to as ageism, have been touted as a contributing factor. It seems likely that there are factors both within the culture as a whole and in the personal interactions of families that make abuse more likely to occur. Among the explanations in the literature are caregiver stress, victim disability, social isolation, perpetrator deviance, and victim-perpetrator dependency.

Situational factors can make caring for an elder particularly difficult. The caregiver may have emotional, psychological, financial, and mental problems of her own. These can become compounded when caring for an elderly person. A family member caring for an older relative may experience financial problems due to the material needs of the elder or missing work to care for the elder. The caregiving is particularly likely to compound any financial problems that were already there, leading to increasing stress for the caregiver. If the physical space is inadequate for the caring tasks, any poor housing conditions can become more concerning. Additionally, caregiving is stressful work, and many caregivers will feel overburdened after an extended time in the role. It is quite hard

if persons are caring for more than one dependent at a time, such as caring for one's child and aging parent simultaneously. The more dependent on a caregiver the elder person is, the more the stress for the person caring for the elder.

Some of the dependencies that exist between an abusive caregiver and victimized elder relate to the tactics and responses developed in family life that can carry over into adulthood. For example, a history of psychological or mental health problems, physical abuse, or poor communication or relationships in a family may continue. There also may be personality problems and difficult behavior displayed by the elder that compound the problem.

Abuse in an institutional setting such as a nursing home might occur, because an elder is cared for in an institution that lacks proper resources. This might refer to the physical structure of the facility but also includes a lack of training for the staff, inadequate staffing relative to need, and stressful work conditions. It is important to remember that there is a component of today's society that argues the elderly are not important. They can no longer contribute to the economy and become costly. This approach suggests that elders feel unimportant as they age and become less critical in the operations of community life. The removal of older members from society and into nursing homes marginalizes elders, making them ripe for exploitation.

While each of these approaches may contribute to the abuse of any given elder, there is no definitive statement about which is the most powerful in explaining the phenomenon. Another variable in the abuse model is the gender of the victim and perpetrator.

Gender Issues in Elder Abuse

Are elders at differential risk of abuse by gender? Because the population of elderly is comprised of more women than men, due to women's greater life expectancy, women have a higher chance of becoming a victim. Not only are there more women, but in general women have less power in society. Research on violent crime shows that women are more likely the victims of assaults perpetrated by family members and acquaintances than those by strangers. Does this pattern hold for elders?

One of the critical elements in elder abuse seems to be dementia. Elders with dementia and related problems are more likely to be victimized. In three out of four cases where the wife abused her husband, he was suffering from severe dementia. In those cases where the son was the abuser, the man also suffered from mild dementia. Dementia featured less prominently in the cases of men being psychologically abused. Daughters, fathers, and sons all abused mothers with severe dementia. For most of the elderly women who are abused, it is generally by someone they live with. Regardless of sex, the worse the health of the elder is, the more likely that the elder will be abused. Overall, women are abused more than men. This is partly because women live longer but they suffer from different health issues. Elder women's health deteriorates more over the years, which makes them more prone to being abused.

Men and women are not equally likely to abuse elders. As the ones primarily responsible for caregiving, women have a greater likelihood of abusing elders. This is a point that has been quite controversial due to the assumption that men are more likely to use violence than women and that women are more nurturing than men. Although women relatives outnumber men relatives as abusers, it is wives who constitute the majority of abusers. In some studies, men have been found to be more likely to neglect an elder than are women. It is more likely that men financially abuse elders, and women physically abuse elders.

Help for the Elderly

The type of help proposed to counteract and decrease elder abuse depends on which of the explanations for abuse is applied. When the abuse is thought to be the result of caregiver stress, which is often associated with neglect, the abuse may be ameliorated

ELDER ABUSE IN OTHER SOCIETIES

Elder abuse is not limited to the United States, but has been defined as a problem in other societies, including South Africa, Australia, Greece, Hong Kong, Finland, Israel, India, Poland, Ireland, and Norway. Many countries do not have a consistent definition for elder abuse, nor do they research its prevalence and societal impacts. The least-common type of abuse reported in other countries is physical abuse. Some definitions ruled out self-neglect as a type of abuse. Physical abuse is very rare in some countries, because the culture espouses keeping harmony rather than using violence. Thus, abuse is culturally specific to the values and morals of the society. Some countries have few health care institutions available for the elderly. Failure to define behaviors as abuse may result from economic issues in different countries. They may not have adequate resources to take proper care of the elderly population that has increased as a result of longer life expectancy and lower mortality rates.

Three themes related to elder abuse that many countries have in common are dependency, economic conditions, and cultural change. Each of these can contribute to the likelihood of elder abuse. Dependency is a problem due to more responsibilities and demands placed on caregivers. Economic conditions are a problem because of unemployment, reductions in incomes, reductions of programs and services, and cutbacks of government assistance. Cultural change is a problem because of different traditions, industrialization, and new technologies. Differing values are also a problem, because the elder may still believe in doing things the way she was brought up, but her adult children may have a different way of doing things, creating conflict between elders and their families. In order to assist elders and prevent abuse, countries should first define and address the problem at hand. Second they have to understand the problem, know why it occurs, and want to end it. And last, they have to get assistance from the government, economy, and media so that it will be taken seriously.

by reducing how dependent the victim is on the caregiver. One way to assist is to bring services into the home so that the caregiver does not have to do everything. Meals on Wheels, respite care, skilled nursing care, housekeeping services, and so forth have all been proposed as strategies to reduce caregiver stress. Another component in reducing stress is the use of adult day care. Skill building and counseling for the caregiver have also been recommended.

If the abuse or mistreatment has more to do with the dependency, emotional or financial, between the perpetrator and the elder, which is often linked to physical abuse, the strategies change. Successful interventions might include mental health services, alcohol or drug treatment, job placement, housing assistance, or even vocational training. Sometimes emergency intervention is necessary, and courts may have to assign a guardian for the elderly person.

The National Center on Elder Abuse, part of the Administration on Aging of the U.S. Department of Health and Human Services, has been active in providing assistance to both caregivers and elders. It educates and advocates for better circumstances for senior citizens and is among the many groups focusing on elder abuse. It may be hard for an elderly person to come forward and ask for help after abuse, because he may not be able to do so, or may be afraid of getting hurt even worse. Elders can also have feelings of embarrassment, being ashamed of their victimization and expecting that no one will believe in them.

There is a lot that can be done to help. Abuse reporting hotlines are available to help caregivers and the elderly. Volunteers working at nursing homes can help identify problems or just be a friendly face who can listen to elders' concerns. One group called Beyond Existing was formed for victims of elder abuse. This group determines the exact abuse problem, talks over the problem with the elder, lets the elder meet others that were in a similar position, and helps the elder plan for the future. Finally, there is also help for elders through physicians, nurses, social workers, and case management workers.

As a public health issue, elder abuse is not expected to end but to increase. Elders are treated by health care professionals, social workers, and case management workers to make sure their needs are met. Health care professionals indicate that elder abuse adds to a health care system already experiencing problems. Nurses play an important role in the detection and resolution of elder abuse. They work as individuals or in a team setting to assess elder mistreatment. If any degree of abuse is present, the most important goal of the nurse is to maintain the safety of the elder and possibly remove her from that care setting. It is also the nurse's job to teach caregivers proper caring procedures for an elderly person, because they may lack the proper knowledge needed to care for an elder.

Physicians have an ethical and, in most states, a legal role in the recognition of and intervention in suspected cases of elder mistreatment. To be fully successful, physicians should be aware of legal issues, ethical issues, and communication needs and have a solid base in principals of geriatric care. Physicians must be able to detect mistreatment

bruises from normal bruises. The presence of physical abuse marks and the stated causes of them must be documented. If a physician suspects mistreatment, he or she is expected to report it. It is also the responsibility of the physician to interview the elder to assess the elder's relationship with the caregiver. Social workers also have an important role in assessing elder abuse. Their main goal is to investigate any allegations of harm being done to an elder.

Conclusion

Elder abuse is a serious issue that society and families must examine and end. As U.S. society continues to age, the already large number of elders who are dependent upon others for daily care will only increase. To ensure that the aged are properly cared for, caregivers need support and training from a variety of sources and settings. Institutions should be monitored to ensure that they have all the proper resources to care for elderly patients, including a well-educated and not overburdened staff. The government plays a role through monitoring and legal regulation. Health care professionals should properly assess mistreatment of the elderly and get help right away.

See also **Elder Care**

Further Reading

Anetzberger, Georgia J., *The Clinical Management of Elder Abuse.* New York: Haworth Press, 2003.

Bonnie, Richard J., and Robert B. Wallace, *Elder Mistreatment: Abuse, Neglect, and Exploitation in an Aging America.* Washington, DC: National Academic Press, 2003.

Brownwell, Patricia J., and Stuart Bruchey, *Family Crimes against the Elderly: Elder Abuse and the Criminal Justice System.* New York: Garland, 1998.

Hoffman, Allan M., and Randal W. Summers, *Elder Abuse: A Public Health Perspective.* Washington, DC: American Public Health Association, 2006.

Nerenberg, Lisa, *Elder Abuse Prevention: Emerging Trends and Promising Strategies.* New York: Springer, 2008.

Payne, Brian K., *Crime and Elder Abuse: An Integrated Perspective.* Springfield, IL: Charles C. Thomas, 2005.

ELDER CARE

Kimberly P. Brackett

At both ends of the life course, infancy and old age, the question of care is paramount. Not only do discussions revolve around the quality of care available to assist with the needs of these groups, but costs and moral obligations compound the debate. Just as young parents must decide whether to place a child in day care or find an alternative so that the child may be cared for at home, adult children and their aging parents must

decide how best to care for the aged. Is home care by a family member or skilled nursing care in an institutional setting most appropriate? Often families agonize over the decision of how to care for their loved one. Many times, financial limitations determine the options more than does personal preference.

Background

Even though the nuclear family has been the norm in U.S. society, caring for ill and elderly kin in one's home was common. Few options existed until the early 20th century, when nurses who were concerned about the health and care of elder citizens began to operate elder care facilities. Accelerated by the Great Depression, they opened their homes at a time when the elderly had few other choices but to accept their care. Nurses could use the meager income that elderly residents could provide from federal Old Age Assistance funds. Thus, nursing homes began as a for-profit enterprise. Nurses were the first professionals to begin research in the area of aging.

At the founding of the United States, few options to care for the elderly existed aside from their own wealth or the generosity of their children. Those who had neither were usually at the mercy of the poorhouses or almshouses that generally were responsible for all those who had no means of support, not just the frail elderly. By the early 1800s, many young folks were moving west to seek their fortunes, often leaving older relatives behind to fend for themselves. In the mid- to late 1800s, residential homes for the elderly began to appear. These were largely the result of benevolent societies such as the Masons and the Knights of Columbus. These voluntary and charitable residences were unlikely to provide medical care but were simply a place to live. Some may have had separate hospital areas where ill persons were housed. Some of the wealthier elderly began to live in so-called rest houses, which were often several rooms for rent in private homes. By the end of the 19th century, more options were emerging for elders. However, care in an institutional setting would not emerge en masse until the 1950s, largely as a result of changes to Social Security programs. In 1954, for example, a national survey found 9,000 nursing homes housing about 270,000 residents.

Elder care today has changed in response to the needs of patients and their desires. There are many different levels of care that are available, and families often find that they need to research them thoroughly to determine which is the most appropriate for their elder relative. Aside from care by a family member or care in the elder's own home, options include adult day care, assisted living, continuous care communities, independent living, and nursing homes. Adult day care provides respite care. This means the regular caregiver can use services to take a break from the rigors of caring. In independent living, residents live in a community setting where all of the maintenance is performed for them. Many amenities and the ability to furnish one's residence as desired make these attractive for healthy elders. There is generally no medical staff on site, however. Very similar to independent living is the continuous care community. These are sometimes

touted as the most luxurious option for retirement living because of the desirable amenities. These communities provide, for a fee, the health care support and assistance that will change with the needs of the resident. Assisted living facilities provide significant support with the tasks of daily living, changing the services as needed by the resident. There is 24-hour security and support staff presence, food service, daily task assistance, and personal support like assistance in dressing, bathing, and so forth. In nursing home care, there is medical assistance available on site, more direct supervision of daily activities, personal support, and end-of-life care.

Caregiver Stress

Caring for a loved one is stressful. The literature suggests that the arrangement works best when there is at least some time for the caregiver and patient to be away from each other. This is where adult day care and other caregiver support tools can be particularly helpful. There are positive aspects to taking care of a loved one at home, usually because of the relationship between the caregiver and the elder. The satisfaction the caregiver feels, knowing that she is taking care of and helping the loved one, can help reduce the stress of the task and can improve her outlook on the role. People with higher rates of positive aspects of caregiving report less depression and more feelings of fulfillment. When the patient is mentally sharp and the relationship between caregiver and patient is close, the caregiving is viewed more positively. Likewise, the attitude one has going into the caregiving task is important in determining the attitude toward the task later. A difference between the races has been found for positive aspects of caregiving. African Americans report higher positive affect toward caregiving and lower anxiety. They also have comparatively lower socioeconomic status.

Older caregivers tend to view the caregiving more positively than do younger caregivers, who might see the task as a burden or interruption of their lives. Caregivers are particularly concerned with the quality of life that they can provide for their patients. When they feel that the loved one's quality of life is deteriorating, they may be more likely to seek alternatives to home care.

Nursing Home Issues

Often the decision to use a nursing home is seen as a last resort. Much of this comes from the stigma of being in an institutional setting. There are circumstances, however, in which a nursing home can be the most beneficial option. While most assume that care outside the home is chosen because the elder relative requires a level of care that can no longer be provided by family, there may be other factors that make nursing home care and similar supportive options attractive. Unlike with other housing options, true nursing homes admit residents only with a physician's order. *Nursing home* is used here to refer to both assisted living and nursing home–type care settings—what is more generally termed *institutional care.*

THE GENDER OF CAREGIVING

Women do more than their share of caregiving. Today men contribute to caregiving more than ever before, but women are still in the primary caregiver role. Estimates are that more than 70 percent of caregivers are women. This disproportionate burden on women might be the result of their socialization. Gender role attitudes are learned early in life and often indicate a gender-based division of labor in families. The most likely provider of care is a spouse. However, when that person becomes unable to provide care, an adult daughter is usually tapped to fulfill the tasks. The order of care providers reflects this gendered expectation: daughter, daughter-in-law, son, younger female relative, younger male relative, and then female nonrelative.

Not only do daughters perform more health care, they do it earlier in life and for longer periods of time than do men. Men usually provide financial and maintenance assistance, not direct personal care. Spouses are the most dependable caregivers, and, because women generally live longer than men, this usually means that wives are doing the bulk of the caring. Spouses generally provide care until the spouse dies or their own health deteriorates significantly. They report seeing the caring as part of the marriage contract. Spouses feel less role conflict and burden in taking care of the partner than do other family members.

Many elderly people do not want to impose on their families and want to remain independent as long as they can. When they can no longer live independently, the family is faced with the choice to care for the loved one at home or employ some type of residential facility, such as a nursing home. In some cases, particularly where there are few financial resources, a nursing home may be the most cost-effective option. Most residents have their care paid for by federal or state subsidies such as Medicare or Medicaid. While this may necessitate the surrender of all the elder's assets to the nursing facility, it may be the best long-term option.

Many of the benefits of nursing home care relate to the tasks of daily living that may become increasingly challenging as persons age. Included would be assistance with dressing, bathing, toileting, and other hygienic self-care. Additionally, for patients who are infirm, changing positions on a routine schedule and diapering can be hard for families but more easily managed with a trained staff. Other daily living tasks that nursing homes provide include food service and assistance with feeding, if needed. They also do laundry for residents and provide housekeeping services in their rooms or apartments.

Among the factors that are comforting to residents and family members are 24-hour security and trained staff caregivers. Additionally, social and recreational activities are available to provide leisure and enjoyment for residents. Given that the oldest and sickest elderly are likely to be in nursing care, the provision of medical supervision, including physician and other health care provider visits, is of benefit to the residents and

families. Assistance is just a call button away, and someone can respond rapidly should an emergency occur.

Socially, many residents of institutional care are very satisfied with the situation. In a nursing home, there are staff and other residents with whom to interact, rather than just one caregiver. Communal living creates a bond with the other residents, who have, for the most part, had similar life experiences. This socially stimulating situation provides a daily activity schedule, and residents are encouraged to participate in it as they are able, thereby providing benefits to physical and psychological health. Even watching television is often done in a group context, thus encouraging interaction and shielding the elder from depression and loneliness.

There is a long-standing fear that nursing homes and other institutional settings are simply warehousing the elderly and that they do not take care of the elder as well as family members would. This stereotype leads to stress over the decision and fear of additional harm occurring as a consequence of the living situation. Most persons have a fear of institutionalization and prefer to stay in a familiar setting. Staying at home might also provide the elder with a sense of independence. Occasional reports of abuse of nursing home residents also make families and elders leery of such settings. While the abuse in these places draws media attention, elders are more likely to be abused by a family member at home than by a staff member at an institution.

Home Care Issues

Reciprocity, giving back to those who have given to you, plays a role whether consciously or unconsciously in the decision to care for an older relative at home. When one is a child, parents provide care; as parents age, children provide care. This creates a sense of being responsible for the care of one's elders. This can lead to guilt when factors limit the amount of care that a child can reasonably provide. This obligation is also mirrored in societal expectations that nursing care is a last resort.

Home care works best when there are multiple people in the family who can help provide it, including household maintenance, transportation, stimulation, and direct physical care. Loved ones who are in poor health necessitate more of a commitment on the part of caregivers. Caregiving involves much more than just providing medical assistance. Family roles and relationships may become altered in the process: economic difficulties, curtailed work and social activities, and exacerbation of family conflicts can all change the interaction dynamics in a family. It is, however, becoming increasingly possible for family caregivers to acquire the needed support to care for elders at home. When care is directed from home, the family can set up who the additional caregivers are, when they provide care, and under what circumstances. This sense of control can be positive for the family and the elderly relative.

It is sometimes less expensive to care for an elderly family member at home than in an institutional setting. Particularly if funds have been established for such purposes,

family members can stretch the budget by performing tasks themselves rather than hiring them out. There may, however, need to be actual physical changes to the home to accommodate adequate care for the elder. The costs of remodeling may be prohibitive.

Having the elder at home makes it easier to interact with that person on a daily basis and monitor his health. This is much more convenient than having to arrange a time to travel to another location to visit and interact. Additionally, more family bonding can occur in the home than in an institutional setting. From the standpoint of the elder, it is a comfortable situation, because she can retain more of her personal belongings and may not have to consolidate items like persons in institutional care must do.

A benefit of home care that is sometimes overlooked is the ongoing contact that the elder has with the community. Rather than being forced to conform to a totally different routine, as occurs in some institutional settings, home care permits the elder to remain an enmeshed participant in the social life of the family and community. This occurs through continuing to see the same health care providers, attending the same church, visiting the same recreational facilities, and so forth.

Conclusion

Many issues will continue to influence the way that families make the decision about institutional care compared to home care. Among the most critical are the changing demographic patterns of the society. As the U.S. population continues to age, there will be more concern about having enough spaces for all those who wish to or need to reside in nursing homes. For persons who are older but still highly functional, having some decision-making ability over their own health is expected. One of the concepts that will likely be discussed more in the coming years is aging in place. Growing older without having to move to secure necessary support services as one's needs change can be beneficial. Advocates (such as the National Aging in Place Council) suggest that efforts should be made to support older persons remaining active participants in their communities and experiencing fulfilling interactions by living independently as long as their health permits them to do so. An intergenerational environment is the likely outcome. This approach is particularly supportive of those of low to moderate incomes, because they experience more financial constraints in the selection of care options.

More institutional facilities recognize this desire for independence and long-term participation in a residential community. Subsequently, they may offer a variety of services to provide long-term options for clients as they move from lower to higher levels of care need. For persons who are fortunate to be financially prepared for retirement and longevity expenses, the option of assisted living and other nursing home alternatives is attractive, suggesting that these types of facilities will be increasingly popular because residents are usually active participants in making the decision to live there.

As today's elders age, they are living longer than past generations due to increased nutrition, medical knowledge, and positive lifestyle choices. This means there are more

oldest old (persons 85 years and older) who are likely to have several medical issues with which to contend and that require more complex chronic disease management. As family size has decreased, the persons who can share the burden of caregiving, both financially and directly, are fewer, requiring a greater commitment from those providing care. Likewise, the continuing high rates of women's employment suggest that there will be fewer traditional caregivers available to assume in-home care giving. Increased mobility for the population means that older people may not live in the same general locale as their potential family caregivers, giving more support to the idea that institutional care will increase as a percentage of all care for elders. Just because nursing and other institutional care is likely to increase, that does not mean that the decision about how to best care for elders will become any easier for families. Social pressures still suggest that the preferable pattern is for family to provide care as long as it is possible to do so.

See also **Elder Abuse; Health Care (vol. 1); Social Security (vol. 1)**

Further Reading

AARP, http://www.aarp.org

Berg-Weger, Marla, *Caring for Elderly Parents.* New York: Garland, 1996.

Digregorio, Charlotte, *Everything You Need to Know about Nursing Homes.* Portland, OR: Civetta Press, 2005.

Ebersole, Priscilla, and Theris A. Touhy, *Geriatric Nursing: Growth of a Specialty.* New York: Springer, 2006.

Henry, Stella Mora, with Ann Convery, *The Eldercare Handbook: Difficult Choices, Compassionate Solutions.* New York: HarperCollins, 2006.

Johnson & Johnson Caregiver Initiative,. http://www.strengthforcaring.com

National Aging in Place Council, http://www.naipc.org

EMPLOYED MOTHERS

Susan Cody-Rydzewski

Maternal employment has been the subject of considerable debate for many years. Women's labor force participation rates have been steadily increasing since before the turn of the 20th century. In fact, over the past 100 years, the number of women who are employed for pay or seeking paid employment has increased from about 4 million in 1890 to almost 63 million in 2001. Furthermore, between 1980 and 2000, the paid labor force participation rate for mothers of school-aged children increased from 64 to 79 percent. For mothers of preschool children, the rate increased from 47 to about 65 percent. In 2009, nearly 60 percent of married mothers with children under the age of three were in the paid labor force. The percentage of mothers who return to work within one year after their child's birth has dropped slightly since the late 1990s,

however. This has led some to suggest that there may be an increase of so-called neotraditional families—families in which women opt out of the labor force and in which spouses prefer traditional gender roles. Evidence seems to suggest that this opting out may be the result of a weak labor market more than a genuine change in gender role ideologies or a concern with family well-being. Labor force participation among women who must work—single parents and those with low levels of education—has continued to grow.

Looking Back

There is a popular misconception that women, especially wives, primarily worked inside the home until the second wave of the women's movement in the 1960s. This myth is largely based on U.S. nostalgia surrounding the period after World War II, in which women were encouraged to leave their jobs to make room for men and return to the home in fulfillment of their natural roles as wives and mothers. It should be made clear, however, that this return to homemaking and domesticity represented a reversal from previous, long-standing patterns.

In preindustrial America, almost everyone, including children, worked. Survival in agrarian economies depends on a stable and predictable supply of food; thus, all members of society must contribute in some way to food production. While some tasks were associated more with women than with men, there was considerable overlap in roles, and most work, including parenting, was performed by both women and men. Industrialization and urbanization led to an initial segregation of gender roles and of work. Men, single women, and women of color were expected to enter into the new paid jobs, while affluent, married women were expected to perform unpaid labor at home. This division of gender roles was supported by a belief system known as the ideology of separate spheres, which posits that work and family are separate domains and that each is better suited to the strengths and skills of either men or women. In summary, expectations for women and mothers vary according to current economic demands. Women's employment is dependent on various social-context variables, including available opportunities for women, economic constraints more generally (on men and women), as well as the perceived rewards and costs of the homemaking role.

Despite economic and social changes, this ideology has remained deeply embedded in U.S. culture and in the minds of most Americans. It appears that many continue to believe that women's natural place is at home. Even among dual-earner couples, it is more common for husbands to describe themselves as primary providers and for husbands and wives to describe wives as secondary providers or to describe their earnings as supplementary. Generally speaking, most couples consider housework and child care to be the province of women. As such, the domestic burden carried by wives results in a reinforcing cycle in which women's contributions to the paid labor force are severely compromised, and their commitment to it is perceived as weak. In other words, if

women perform more housework, they are less able to contribute to their jobs or careers. This inability to contribute may be perceived as an unwillingness to contribute and thus a lack of professional commitment.

Work-Life Issues Today

Both the family and the workplace are so-called greedy institutions, demanding a great deal of time and energy from individuals. In fact, in the United States the full-time work week is quite a bit longer than in many Western European countries. Furthermore, individuals often find that these domains require the most from them during the same period of their lives. That is, the demands of work and family peak around the same time. Thus, many women and men feel that it is difficult to balance the demands of career, marriage, and family. This is particularly true of women, because they are expected to be the "kinkeepers"—maintaining a happy marriage, a stable and successful family, routines, rituals, and extended family ties. Not surprisingly, balance may be most difficult to achieve among dual-earner couples with preschoolers. To help achieve balance, one spouse, typically the wife, may choose to limit the time spent in the paid work force. Other strategies include seeking more flexible work schedules, although historically in the United States flexible options in the workplace have been scant. Some spouses may opt to work from home. However, studies have shown that women who work from home contribute more to housework than do men who work from home. Another consequence of the inability to balance work and family is a lack of leisure time, especially for wives. In one study, it was found that while husbands tend to relax in the evenings or enjoy a personal hobby, wives tend to be focused on housework and child care.

Because a belief in separate spheres remains firmly entrenched in American ideals, employed women, and especially mothers, often find that they not only confront conflicting role expectations but also social disapproval. Approval for working mothers seems to be on the increase, however. A 2001 survey of women found that over 90 percent of them agreed that a woman can be successful at both career and motherhood.

Today, a majority of mothers are employed. This trend has prompted a significant amount of negative attention, especially from social and religious conservatives. The primary concern seems to revolve around the potentially negative effects of maternal employment on child development and on family relationships more generally. The current ideal and expectation for so-called intensive mothering requires that women be available and receptive to their children's needs for most, if not all, hours of the day, every day of the week. There is no comparable expectation for fathers. Good fathering is normally defined as stable providing; thus, there is no contradiction between the roles of father and employee. For women, however, employment presents a challenge, at least ideologically, to the mothering role, because good mothering is not equated with providing. In fact, commitment to paid work is typically viewed as posing a threat to successful mothering. Women who wish to pursue both a career and motherhood may feel that they must

choose between two opposing, mutually exclusive alternatives. The cultural contradiction of being a working mother has negative economic and professional ramifications for women. It has been found that not only does being married reduce the chances that a woman will be promoted, but being a mother does so as well. Women with preschool-aged children have lower rates of promotion than do other women, whereas the opposite is true for men. Motherhood has a definite negative impact on lifetime earnings—this is known as the motherhood penalty. This penalty has not declined significantly over the years.

Many of the concerns surrounding mothers' employment are unfounded; there is little, if any, empirical support for them. The primary concern surrounds the effects of maternal employment on the well-being of children. Furthermore, this seems to have been prompted by a larger concern with the rise of women's equality, threats to the masculine gender role, especially men's role as providers, and what some believe are the long-term, negative effects of the feminist movement. For the most part, Americans are accepting of mothers' employment if and when it is absolutely necessary to provide for basic necessities. Attitudes become more intolerant, however, of mothers who have careers and work for personal fulfillment. In fact, in recent years, there have been several instances of highly publicized cases in which children were harmed while under the supervision of a paid caregiver, such as a nanny. In such instances, it was the employed mother, not the hired caregiver or the employed father, who was held responsible for the child's well-being. Rarely, if ever, are fathers implicated in such cases.

A number of research studies have examined the question of what effect, if any, maternal employment has on child well-being. Among mothers who work outside the home during their child's first year of life, some negative outcomes have been found. However, many factors, such as the type and quality of child care, home environment, spousal attitudes toward women's employment, and gender role ideology need to be considered as well. After careful consideration of many of the studies examining the effects of women's employment on child outcomes, some have concluded that, in and of itself, maternal employment has little, if any, negative impact on child development or on child-parent relationships. In fact, some studies find that children benefit from maternal employment or from high-quality child care. Interestingly, a number of studies indicate that parents today spend as much or more time with children than in the past. For instance, it has been shown that, in 1975, married mothers spent about 47 hours per week with their children, whereas in 2000, they spent 51 hours per week with them. This increase seems to be the result of a decrease in time spent on personal care, housework, and marital intimacy.

Regardless of the child care arrangement, employed mothers may feel as if they are being asked to juggle and manage multiple roles—to do it all. The idea of the supermom is that of a woman who successfully manages a marriage, a family, and a career with time left over for herself. The reality is quite different from the image, however. Working

mothers often report feeling overwhelmed with the kind and quantity of responsibilities they maintain. Not only are mothers expected to manage and execute tangible tasks such as meal preparation and transportation, but also psychological tasks such as planning and preparing for family routines. While husbands may serve as occasional pinch hitters, wives typically have an executive function, meaning that it is ultimately their responsibility to see that the household runs efficiently. Furthermore, the demands of the household are continuous and unrelenting; thus, household executives are never off duty.

Husbands and Housework

While women have made a substantial entry into the public sphere of paid work, men have not made a comparable entry into the private sphere of unpaid work. Even among dual-earner couples, wives perform the majority of unpaid labor in and around the home; this extra shift of work for employed wives has been referred to as the "second shift" or "double day." Ironically, just being married seems to increase the amount of housework that women perform, as single mothers spend less time in housework than do married mothers. Because of the uneven distribution of household labor and child care, there is a considerable leisure gap between mothers and fathers; that is, mothers have much less free and discretionary time than do fathers. Employed mothers often report feelings of physical and psychological exhaustion. Affluent couples may decide to hire outside help to assist with child care, household chores, or both. However, research indicates that it is still wives who initiate and coordinate such services. Other couples may rely on older children to assist with housework. This may be more common among single-parent households. Over 40 percent of children have been in some sort of nonrelative child care arrangement by the time they enter school. About 40 percent of children age 12 to 14 and 8 percent of those age 5 to 11 whose mothers were employed were in unsupervised self-care arrangements. Self-care is more common among white upper-middle-class and middle-class families. Lower-income, single-parent, and Latino families are much more likely to involve extended family members in the care of children.

Encouragingly, husbands' contributions to unpaid work have increased somewhat over the past 20 years or so. Husbands' involvement in household labor and parenting varies somewhat by race or ethnicity. African American couples, for example, are characterized by greater sharing and more egalitarianism. This may be due to higher rates of labor force participation among women of color as well as more cultural approval for a communal approach to parenting. Participation in housework is generally related to the relative earnings of spouses. That is, husbands of wives who earn a significant share of the total family income generally perform more housework than do husbands of wives who earn very little. Ironically, men may actually do less housework if and when they become unemployed. This may be an attempt to reclaim or hold onto an already threatened masculine identity.

See also **Child Care; Affirmative Action (vol. 1); Glass Ceiling (vol. 1)**

Further Reading

Blair-Loy, Mary, *Competing Devotions: Career and Family among Women Executives.* Cambridge, MA: Harvard University Press, 2005.

Crittenden, Ann, *The Price of Motherhood: Why the Most Important Job in the World Is Still the Least Valued.* New York: Henry Holt, 2002.

Galinsky, Ellen, *Ask the Children: The Breakthrough Study that Reveals How To Succeed at Work and Parenting.* New York: HarperCollins, 1999.

Hays, Sharon, *The Cultural Contradictions of Motherhood.* New Haven, CT: Yale University Press, 1998.

Hesse-Biber, Sharlene, and Gregg Lee Carter, *Working Women in America: Split Dreams.* New York: Oxford University Press, 2004.

Hochschild, Arlie Russell, *The Time Bind: When Work Becomes Home and Home Becomes Work.* New York: Henry Holt, 2001.

Landry, Bart, *Black Working Wives: Pioneers of the American Family Revolution.* Berkeley: University of California Press, 2002.

Padavic, Irene, and Barbara Reskin, *Women and Men at Work.* Thousand Oaks, CA: Pine Forge Press, 2002.

Williams, Joan, *Unbending Gender: Why Family and Work Conflict and What To Do About It.* New York: Oxford University Press, 2001.

EUTHANASIA AND PHYSICIAN-ASSISTED SUICIDE

Susan Cody-Rydzewski

In general, one can choose death by euthanasia and physician-assisted suicide. Broadly understood, euthanasia means "good death"; however, current usage depicts a specific kind of dying, which is usually accomplished by the act of someone other than the one who dies. Physician-assisted suicide is a particular form of suicide, or dying, where a physician who possesses relevant knowledge and skills assists the one who wishes to die. Various religious perspectives offer ways to deal with the challenges presented by death and dying, pain and suffering, freedom and responsibility in health care, and the value of human life. All of these are present at the intersection of euthanasia, physician-assisted suicide, and religion.

Typically, euthanasia and physician-assisted suicide occur in the context of health care when patients face death and dying. Death and dying are fundamental to (and inevitable in) the human condition. Historically, death and dying happened as a consequence of incurable disease, unforeseen accident, war, or murderous action. With euthanasia and physician-assisted suicide, however, one can take control over the circumstances, the mode, and the health state at the time of death. This represents a technological transformation

of the dying process—a transformation that many argue brings about individual and social goods (philosopher Daniel Callahan refers to this kind of phenomenon as "technological brinkmanship"; see Callahan 2000, 40–41).

As the Hippocratic Oath indicates, the ethical, legal, and theological issues of euthanasia and physician-assisted suicide are not necessarily new. Dating back several centuries, the oath prohibits a Hippocratic physician from prescribing poisons and other materials for his patient (see Edelstein 1967; Rietjens et al. 2006; Ramsey 1974; Campbell 1994). Interestingly, this is not lost in a Christian version of the Hippocratic Oath: "Neither will I give poison to anybody though asked to do so, nor will I suggest such a plan" (Lammers and Verhey 1998, 108).

Nevertheless, the advances in medicine have brought new energy to this topic. Because many diseases remain incurable, the best that health care providers can do is manage one's painful symptoms as her illness marches on a path, often with intense suffering, before it ends in death. Many patients who have metastatic and terminal cancer experience this tragedy. For many commentators, this represents an intolerable reality. Instead, they wish to take matters into their own hands and seek voluntary euthanasia or physician assistance in their suicide.

From the perspective of various religions, these two practices—euthanasia and physician-assisted suicide—raise several ethical, legal, and theological issues. However, before discussing these issues, we will review the traditional distinctions of the term *euthanasia.* Then we will identify and describe the major ethical and legal issues in euthanasia and physician-assisted suicide. Finally, we will conclude with an overview of public policy considerations regarding both of these practices.

Traditional Distinctions of Euthanasia

Here, euthanasia is to be understood as the voluntary and intentional ending of a person's life. Many ethicists have made three critical distinctions in the debates over euthanasia. First, there is a distinction between voluntary and involuntary euthanasia. Voluntary euthanasia happens either by or at the request of the recipient of the act. Involuntary euthanasia occurs without the consent of the individual, either because the patient is incompetent, because the patient's wishes are not known, or because it is a policy to end the life of a person with certain traits (e.g., Nazi euthanasia policies). Most discussions of euthanasia reject any consideration of involuntary euthanasia, particularly in this last sense.

Second, there is a distinction between active and passive euthanasia. Active euthanasia occurs when someone performs an action that results in the death of the patient. Thus, one understands active euthanasia positively as the commission of a death-inducing action. Passive euthanasia occurs when someone does not perform an action, which results in the death of the patient. Thus, one understands passive euthanasia negatively as the omission of a life-preserving action. An example of active euthanasia is a doctor's

injecting a lethal dose of drugs into a patient to bring about the patient's death. An example of passive euthanasia is a doctor's intent to kill a patient by refusing to administer antibiotics to a patient suffering from a treatable form of pneumonia. (There may be other morally justifiable reasons and circumstances why the physician would not provide antibiotics to a patient without intending the patient's death per se, but, for the sake of this example, we will consider the pneumonia to be the patient's only diagnosis.)

Third, there is a distinction between direct and indirect euthanasia. Here, one's intention plays a key role in establishing whether the action is direct or indirect. In addition, the Principle of Double Effect is applicable, which enables one to determine the nature of the agent's intent and whether the action is morally permissible. (In short, ethicists use the Principle of Double Effect to determine whether an act that produces both good and bad effects is morally permissible.) In direct euthanasia, an agent intends the death of the patient as the sole end. In indirect euthanasia, an agent does not intend the death of the patient either as the end sought or as a means to a further end. However, many prefer not to use the term *indirect euthanasia,* because this may confuse foregoing or withdrawing treatment with the intentional killing of a patient.

Historically, many confuse the last two distinctions: an active euthanasia act was direct; a passive euthanasia act was indirect. However, this is misleading because (1) there are two sets of criteria that distinguish these two terms (i.e., observation in the former, and the Principle of Double Effect in the latter), and (2) one distinction is descriptive of the action (i.e., commission versus omission), the other distinction is evaluative of the action (i.e., direct euthanasia is not morally permissible whereas an indirect euthanasia might be). Therefore, some ethicists suggest that these distinctions remain separate and avoided.

Additional reasons exist for avoiding these terms and they include the following: First, using the generic term *euthanasia* to speak of both direct killing and withdrawing therapy is confusing methodologically and psychologically. Second, many ethicists debate whether there is in fact a moral difference between active and passive euthanasia. Limiting the term *euthanasia* to the intentional killing of an individual at least circumvents that debate. Third, some ethicists think it is better to identify the moral legitimacy of foregoing or withdrawing a therapy as a separate issue. In this instance, one is focusing on benefit to the patient, which precludes considerations of killing the patient.

Many bioethicists frequently discuss the ethics of voluntary euthanasia in connection with the ethics of physician-assisted suicide. In fact, many see physician-assisted suicide as a form of voluntary euthanasia. However, there are key differences. First, suicide is a self-induced interruption of the life process and typically occurs in a nonmedical context; that is, many individuals who commit suicide in general are not suffering from a life-threatening disease. Second, while voluntary euthanasia and physician-assisted suicide may share motivations (e.g., mercy, compassion, and respect of autonomy), the ways in which one performs them differ significantly. In voluntary euthanasia, a physician or

another person commits the act. In physician-assisted suicide, a physician cooperates but does not commit the act. Instead, the physician helps the patient commit the act. Third, many debate the distinction between voluntary euthanasia and palliative care. This does not occur in the context of physician-assisted suicide. Therefore, there are important issues to untangle in considering voluntary euthanasia in the continuum of care in modern hospitals. There is less of a need to disentangle issues between physician-assisted suicide and other forms of medical care.

Indeed, one study compared the clinical practices of terminal sedation (which is, according to the study, a palliative care protocol that induces a coma to relieve pain) and euthanasia in the Netherlands (Rietjens et al. 2006). These researchers found that both practices frequently involve patients who suffer from cancer. On the one hand, clinicians tended to use terminal sedation to address severe physical and psychological suffering in dying patients; on the other hand, clinicians tended to engage in euthanasia to protect patients' dignity during their last phase of life. In addition, clinicians employing terminal sedation tended to order benzodiazepines and morphine; clinicians participating in euthanasia tended to order barbiturates. Furthermore, the time interval between the administration of the drug and the patients' deaths ranged from one hour to seven days for terminally sedated patients and tended to be less than one hour for euthanized patients.

Ethical Issues

Several ethical issues involved in the debates over euthanasia and physician-assisted suicide remain controversial despite the lengthy debates over them. These issues relate to the various legal and theological issues, too. Here is a survey of some major ethical issues: human dignity, patient autonomy, prevention of harm, protection of the marginalized, and protection of professional integrity in health care.

First, among the most well known ethical issues in the debates over euthanasia and physician-assisted suicide is human dignity. Despite its pervasive use, the term suffers from ambiguity. At least two fundamental ways exist in which human dignity functions in ethical debates: as an expression of (1) intrinsic worthiness or (2) attributed worthiness. In the first sense, one may understand human dignity as an expression of intrinsic or inherent worthiness. This may directly relate to certain religious beliefs; in the Judeo-Christian traditions, the belief that God created humankind in his own image and likeness translates to an inviolable intrinsic worth. In contrast, one may understand human dignity as an attributed worth. On the one hand, one may suffer indignity as a result of the conditions or properties of one's life—for example, many would consider it undignified to live with a very poor quality of life as in complete dependence on machines to live and being bed-ridden. On the other hand, one may suffer indignity as the consequence of others' actions—for example, ignoring the incontinence of a bed-bound patient or neglecting senile elderly patients because of some repugnance to old age.

As a form of intrinsic worth, one may argue against euthanasia and physician-assisted suicide because such actions violate human dignity: intentionally killing a patient can never be an expression of respect for human dignity. As a form of attributed worth, one may argue for euthanasia and physician-assisted suicide because such actions may prevent such indignities. This is why some proponents suggest that euthanasia or physician-assisted suicide is a form of "death with dignity." However, in a now famous article, "The Indignity of 'Death with Dignity,'" the late theologian Paul Ramsey refuted this claim (Ramsey 1974).

Second, patient, or personal, autonomy relates to human dignity; here, autonomy is an exercise of self-rule whereby one controls the circumstances, the mode, and one's health status at the time of one's death. The fear of losing control over one's life is a powerful motivator for euthanasia or physician-assisted suicide. Individuals who seek physician-assisted suicide often do not want to live long enough to experience that loss of control and independence. For them, living in such circumstances could be a nightmare. When proponents of euthanasia and physician-assisted suicide seek a right to die, their concept of patient autonomy supports this right.

In these ways, one uses patient autonomy in support of voluntary euthanasia and physician-assisted suicide. However, this may confuse different notions of freedom. Indeed, the loss of control may seem like a loss of freedom, but, in general, this is only one kind of freedom lost: the freedom of choice. Alternatively, if one thinks of freedom as freedom of being—or freedom to be fully human—then a choice of death may be the ultimate imprisonment. That is, if humans are fundamentally relational (a belief prevalent among the world's major religions), then a choice to end all of one's relationships in choosing death would be an act that denies a basic aspect of what it means to be human.

Notwithstanding this alternative, if individuals experience suffering and indignity (i.e., the loss of control or the corresponding fear) as they approach death during a terminal illness, this may be more of a critique of society's inability to address the needs of the dying (Cahill 2005). In this sense, society may be effectively abandoning patients by not giving them the support and environment they need to flourish even in the last moments of physical life. Such circumstances make euthanasia and physician-assisted suicide logical choices.

Third, the prevention of harm is another ethical issue one finds in the debates over euthanasia and physician-assisted suicide. There are two aspects to this issue. On the one hand, proponents call for legalizing euthanasia or physician-assisted suicide (or both) as a way to regulate the practices. The intent behind this is to prevent harms to patients that are a direct consequence of the acts of euthanasia or physician-assisted suicide themselves. For example, without proper training or sufficient regulations, a patient may obtain and use an inadequate dose of lethal drugs. This may cause harm, because such a dose might not induce death and could leave the patient in an undesirable state (e.g.,

a coma). On the other hand, proponents argue for euthanasia and physician-assisted suicide as a means of preventing harms related to the illness the patient has or the treatments that the patient would need to endure (e.g., chemotherapy). In this sense, the patient prevents the harms by bypassing both the experience of the disease process and the risks or burdens of the treatments for the disease.

Of course, some opponents to euthanasia and physician-assisted suicide find this line of reasoning difficult to accept. For them, it seems illogical to prevent harm by causing the end of the patient's life. For some, the options of euthanasia and physician-assisted suicide are seen as failures of the health care system to deal adequately with the pain and symptoms of terminal illness and the dying process. Many claim that, with appropriate and accessible palliative care (pain and symptom management) and hospice care, the need or desire for euthanasia and physician-assisted suicide would diminish. However, this may not be as true as some hope: as discussed above, a principal concern is the loss of control, not the experience of pain per se.

Fourth, the protection of marginalized groups from a socially instituted policy of euthanasia constitutes another ethical issue. Here, the principal concern is to protect those who do not exercise autonomy in choosing euthanasia and who, in fact, may resist it. Therefore, this ethical issue results when involuntary euthanasia becomes a social practice supported by political power. This particular issue lives in the shadows of the Holocaust and Nazi euthanasia policies. Despite this tragic episode in human history, contemporary debates persist. For example, some proponents claim that involuntary euthanasia may be justifiable for the severely handicapped.

This issue also incorporates elements of a slippery slope argument. In this case, opponents claim that legalizing voluntary euthanasia and physician-assisted suicide jeopardizes the disabled and other marginalized groups, because such decisions reflect a belief that certain lives are not worth living. Opponents are concerned that the disabled community represents certain kinds of life that those who would support euthanasia would not want to live. Thus, even if legalized euthanasia was restricted to voluntary forms and physician-assisted suicide, such practices are only a short step away from involuntary euthanasia of the severely disabled and then (with one more short step) from the moderately or even slightly disabled. For these opponents, it would be quite possible to slip and tumble down the slope to widespread involuntary euthanasia.

To take this perspective further, if involuntary euthanasia of the severely handicapped never became a reality, there remains a concern that a culture that supports voluntary euthanasia would undermine programs and relationships that promote the livelihood and well-being of persons who are physically and mentally challenged. Thus, there may be decreasing support for social assistance programs and increasing pressure to participate in euthanasia or assisted suicide.

Finally, the practices of euthanasia and physician-assisted suicide may undermine the professional integrity of medicine (and other health care professions like nursing).

On the one hand, health care professionals do not want to abandon their patients at the end of life. On the other hand, health care professionals—as helping and healing professionals providing care—do not want to confuse their role or contribute in any way to an erosion of their professional ethos as healers. One concern is that this erosion may have a social consequence of confusing the role of healer and the role of executioner. In these circumstances, the trust in the physician-patient relationship is at risk; if physicians can no longer deal with death and dying appropriately and abandon their patients, patients will not trust doctors to be with them as they face their most difficult health crisis. Similarly, if a doctor supports euthanasia or physician-assisted suicide, a patient may be confronted with a doctor who may see euthanasia and physician-assisted suicide as the "easy way out" and may not trust her professional judgment about what is in her best interests.

Legal Issues in the United States

In 1991 and 1992, citizens in Washington and California, respectively, voted on two referenda; these referenda sought to sanction legally both euthanasia and physician-assisted suicide, or physician-assisted dying. In both cases, voters defeated these referenda by very narrow margins—about 54 percent to 46 percent in both cases. However, in 1994, the citizens of Oregon were asked to vote on Measure 16, which asked, "Shall law allow terminally ill adult Oregon patients voluntary informed choice to obtain physician's prescription for drugs to end life?" (quoted in Campbell 1994, 9). In this case, the measure passed, which ultimately led to the Oregon Death with Dignity Act (see "The Oregon Death with Dignity Act," in Beauchamp et al. 2008, 404–406). The critical difference between this Oregon statute and those proposed in Washington and California is its restriction to physician-assisted suicide.

When Oregonian voters approved this measure in November 1994 by a very narrow margin, Oregon became "the only place in the world where doctors may legally help patients end their lives" (Egan 1994, A1). However, that was not the end of the story. The day before the measure was to become law, its enactment was blocked by a court challenge. In August 1995, a federal judge ruled the measure unconstitutional because "with state-sanctioned and physician-assisted death at issue, some 'good results' cannot outweigh other lives lost due to unconstitutional errors and abuses" ("Judge Strikes Down Oregon's Suicide Law," A15).

In March 1996, the legal situation changed radically for the nine western states in the jurisdiction of the United States Court of Appeals for the Ninth Circuit, including Oregon. In an 8–3 ruling, this court struck down a Washington State statute that made assisting in a suicide a felony. While this ruling held only for the states in the Ninth Circuit, a very critical precedent was set. The grounds for the ruling were privacy and autonomy. Judge Stephen Reinhardt, writing for the majority, said: "Like the decision of whether or not to have an abortion, the decision how and when to die is one of 'the

most intimate and personal choices a person may make in a lifetime,' a choice 'central to personal dignity and autonomy'" (Lewin 1996, A14). The ruling also argued that not only doctors should be protected from prosecution "but others like pharmacists and family members 'whose services are essential to help the terminally ill patient obtain and take' medication to hasten death" (Lewin 1996, A14). Thus, the window opened for a round of appeals and argumentation. Later, a unanimous ruling of the three-judge Second Circuit Court of Appeals in New York reinforced this ruling in April 1996. This court stated "that doctors in New York State could legally help terminally ill patients commit suicide in certain circumstances" (Bruni 1996, A1). As the ruling was appealed, a critical countrywide debate began.

Additionally, Michigan passed a law explicitly prohibiting physician-assisted suicide; this was in response to the activities of Jack Kevorkian, whose activities include physician-assisted suicide. However, this law has passed out of existence because of specific time limits. Furthermore, Kevorkian was brought to trial for acts committed while this law was in effect but was found not guilty based on the jury's decision that his intent was to relieve pain, not to cause death. Notwithstanding this, another murder charge was brought against Kevorkian in 1999. In this case, he was convicted and sentenced to prison.

Finally, three United States Supreme Court cases have become landmark cases in the legal and ethical debates over physician-assisted suicide. In 1997, the U.S. Supreme Court adjudicated on two related cases (Beauchamp et al. 2008). First, the main question before the Court in *Vacco v. Quill* was whether New York's prohibition on assisting suicide violated the Equal Protection Clause of the Fourteenth Amendment. The Court held that it did not. Second, the main question before the Court in *Washington v. Glucksberg* was whether the "liberty" (i.e., the right to refuse wanted life-saving medical treatment) specifically protected by the due process clause includes a right to commit suicide, which includes a right to assistance in suicide. The Court held that the right to assistance in suicide is not a fundamental liberty interest protected by the due process clause. In the 2006 case of *Gonzalez v. Oregon,* the main question before the Court was whether the Controlled Substances Act allows the U.S. attorney general to prohibit doctors from prescribing regulated drugs for use in physician-assisted suicide, notwithstanding a state law prohibiting it (Beauchamp et al. 2008, 413–418). The Court of Appeals held that the interpretive rule exercised by the attorney general to restrict use of certain drugs was invalid; the Supreme Court held that the Court of Appeals was correct: its decision was affirmed.

In summary, these cases have three implications. One, they demonstrate that it is not unconstitutional for states to ban assisted suicide while protecting patients' rights to refuse life-sustaining treatment. Two, one cannot claim that physician-assisted suicide is a fundamental liberty interest protected in the same way as the right to refuse treatment. Finally, the executive branch at the federal level cannot use the Controlled Substances

Act to restrict physician-assisted suicide at the state level (which basically protected the practice of physician-assisted suicide in Oregon).

Public Policy Considerations

In the end, there are many public policy considerations in the debates over euthanasia and physician-assisted suicide. However, there are four major considerations. The first consideration is, of course, the legalization and institutionalization of euthanasia and/or physician-assisted suicide. Here, institutionalization means the systematic integration of those interventions as organizational policy and professional practices. The legal issues in the United States mentioned above will continue to shape the possibility of legalization (or criminalization) of these practices. The second consideration is the fair availability and access to alternatives at the end of life; that is, public policy on euthanasia or physician-assisted suicide ought to consider adequate home health services, palliative care, and hospice as legitimate options to euthanasia and physician-assisted suicide. A third consideration includes adequate and necessary protections for marginalized individuals—especially the disabled, elderly, and sick—in society. If any public policy is to legitimize euthanasia and physician-assisted suicide, robust protections for these marginalized groups will be necessary. Finally, a fourth consideration is the protections for the health care professions, which ought to seek a separation between the roles of helping and healing and the roles of death-causing or -assisting. This will include sensitivity to the potential for conflicts of interest, reimbursement schedules, and the authenticity of both patient and provider judgments that choosing death is freely chosen. Many of the safeguards in Oregon's statute recognize these and other procedural issues involved in implementing a policy of physician-assisted suicide.

See also **Suicide and Suicide Prevention; Health Care (vol. 1); Social Justice (vol. 2); Biotechnology (vol. 4); Medical Ethics (vol. 4)**

Further Reading

Beauchamp, Tom L., et al., *Contemporary Issues in Bioethics,* 7th ed. Belmont, CA: Thomson Wadsworth, 2008.

Bruni, Frank, "Federal Ruling Allows Doctors to Prescribe Drugs to End Life." *New York Times* (April 3, 1996): A1.

Cahill, Lisa Sowle, *Theological Bioethics: Participation, Justice, and Change.* Washington, DC: Georgetown University Press, 2005.

Callahan, Daniel, *The Troubled Dream of Life: In Search of a Peaceful Death.* Washington, DC: Georgetown University Press, 2000.

Callahan, Daniel, *What Kind of Life? The Limits of Medical Progress.* Washington, DC: Georgetown University Press, 1995.

Campbell, Courtney S, "The Oregon Trail to Death: Measure 16." *Commonweal* 121, no. 14 (August 1994).

Edelstein, Ludwig, "The Hippocratic Oath: Text, Translation and Interpretation." In *Ancient Medicine,* ed. Oswei Temkin and C. Lillian Temkin. Baltimore: Johns Hopkins University Press, 1967.

Egan, Timothy, "Suicide Law Placing Oregon on Several Uncharted Paths." *New York Times* (November 25, 1994): A1.

Foley, Kathleen, and Herbert Hendin, eds., *The Case against Assisted Suicide: For the Right to End-of-Life Care.* Baltimore: Johns Hopkins University Press, 2002.

Gorsuch, Neil M., *The Future of Assisted Suicide and Euthanasia.* Princeton, NJ: Princeton University Press, 2006.

"Judge Strikes Down Oregon's Suicide Law," *New York Times* (August 4, 1995): A15.

Keown, John, ed., *Euthanasia Examined: Ethical, Clinical, and Legal Perspectives.* New York: Cambridge University Press, 1995.

Lammers, Stephen E., and Allen Verhey, eds., *On Moral Medicine: Theological Perspectives in Medical Ethics,* 2d ed. Grand Rapids, MI: William B. Eerdmans, 1998.

Lewin, Tamar, "Ruling Sharpens Debate on 'Right to Die,'" *New York Times* (March 8, 1996): A14.

McLean, Sheila, *The Case for Physician Assisted Suicide.* London: Pandora, 1997.

Mitchell, John B., *Understanding Assisted Suicide: Nine Issues to Consider.* Ann Arbor: University of Michigan Press, 2007.

Ramsey, Paul, "The Indignity of 'Death with Dignity.'" *Hastings Center Studies* 2, no. 2 (May 1974): 47–62.

Rietjens, Judith A.C., et al., "Terminal Sedation and Euthanasia: A Comparison of Clinical Practices." *Archives of Internal Medicine* 166 (2006): 749–753.

F

FOSTER CARE

Derrick Shapley

Defining foster care is a challenge. The most often stated definition for foster care is "care given outside a child's natural home for more than 24 hours when the child's home is not available to him or her excluding children at camps, in hospitals, or on weekend visits" (Stone 1970). This definition implies that the parents cannot provide adequate care for some serious reason. The essential element of foster care is child rearing responsibility shared with the child welfare agency, the original parents, the foster parents, the child care staff, and social workers. Foster care also has an expectation that it is of a limited duration; it is not a permanent method of child rearing but a temporary solution to a crisis in the home.

A simpler definition for foster care is "a generic term for children living in out-of-home care" (Curtis, Dale, and Kendall 1997). Historically, foster care was referred to as boarding out, implying that foster parents were almost always nonrelatives. These persons were reimbursed the expenses of caring for dependent children residing in their household on the assumption that the arrangement was a temporary one. The four basic types of foster care in the United States are family (nonrelative) foster care, kinship (relative) care, therapeutic foster care, and residential group care.

A thorough examination of the child welfare system, or foster care, in the United States finds that problems in foster care are similar to the issues that need to be addressed in the larger society as well. These issues include race, class, gender, government funding or lack thereof, and acceptance of people with mental and physical disabilities.

The foster care system is imperfect because it must deal with a myriad of complex social problems. When dealing with such complexities, it is impossible to create a perfect system. Our foster care system works with the worst aspects of social problems within U.S. society. As a result, a social worker's job is not easy. A child welfare worker, during the course of a typical work day, could have to remove a child from a family that has physically, emotionally, or sexually abused the child and then turn around and go to another house and attempt to find a solution for a child who has severe physical or emotional disabilities. Social workers are constrained by laws that limit what they can do. While they are thought to be the last line of defense in the care of a lost child, they rarely have adequate resources and community support to protect children who are in the direst situations.

Roughly 500,000 children are in foster care in the United States. African American children make up two-thirds of the foster care population and stay in foster care longer than the average child. About 30 percent of children in foster care have emotional, behavioral, or developmental problems, and the average age of a child in foster care is 10 years old.

The number of children in out-of-home care is enormous. According to the Child Welfare League of America (CWLA), in 2006, the national mean per state was 9,993, and the national median was 6,803. California had 92,344 children in foster care, the largest total in any state. Wyoming had the fewest children in foster care with 1,209.

Any attempt for a state to create a better foster care environment must first recognize the number of the children in foster care and then budget accordingly for an adequate caseload per social worker. The CWLA has set up recommended caseload standards for each state to follow. The CWLA recommends that one social worker should have at most 12 to 15 children that are in foster family care. The CWLA also recommends one supervisor for every five social workers. Additionally, there are guidelines suggesting that more than 12 initial assessments or investigations per month would be too much for one social worker.

Many states have strains on their budgets, which cause these recommendations to go unfulfilled. Instead states follow the guidelines that they have already established, which are likely to be less stringent than the CWLA recommendations. There is very little uniformity in foster care among the states. Our system of federalism as well as budgetary constraints in each state strain the uniformity in the child welfare process; therefore, varying standards of care among each state are bound to occur. In a way, each state is its own laboratory of experiments working to design a child welfare system that is responsive to each child within the state's budget limitations.

Background

English colonists arriving in the United States brought the Poor Law system with them. Long after the American Revolution, the well-established tradition continued to inform poverty practices. During the beginning of the 19th century, adults and children

were cared for with very little or no distinction. Almshouses were gaining in popularity for the care of both the children and the elderly in large cities. Almshouses were privately funded (usually through churches) houses that cared primarily for the poor and destitute.

Agencies that cared for destitute children tended to spring up from two sources. The first of these was from public bodies that would act as representatives for the community as a whole. The second was from private donations and was exercised by benevolent individuals or associations. In 1853, Charles Loring Brace began the free foster home movement. Brace was concerned about the large numbers of homeless children and wanted to find families for them in the United States. He started advertising all across the country and would send children in groups of 20 to 40 in trains to their new destinations. Reverend Brace's work led to the creation of the Children's Aid Society and provided a framework for the establishment of a permanent foster care system in the United States.

In 1868, Massachusetts became the first state to pay for children to board in private family homes. In 1885, Pennsylvania became the first state in the United States to pass a licensing law. This law made it a misdemeanor for a couple to care for two or more unrelated children unless they were licensed to do so by the state. In 1910, Henry Chapin circulated statistics showing that orphanages sickened and killed large numbers of children. It was Chapin's belief that a poor home is better than a good institution. However, it was not until 1950 that the number of children in foster care outnumbered the number of children in institutions. In 1935, Aid to Dependent Children, which later became Aid to Families with Dependent Children (AFDC), was established through the Social Security Act of 1935. What AFDC and other antipoverty programs did was give financially struggling families an alternative to placing their children in institutions or losing them forever. The program was later expanded in the 1960s, and, with that expansion, federal funding for foster care was added.

While foster care has come a long way in the United States, there are still a host of problems within the current system. Many of these problems are vestiges of the old child welfare system. However, there are also new problems that social workers are just now beginning to see and that researchers are just now beginning to understand. With all these problems, there will still be a long history that will be written about foster care.

Foster Care Values

Foster care can be thought of as being based on three main values. First, maternal deprivation in the early years of life has an adverse effect on personality development, and later difficulties of the individual can be traced to a breakdown in this early relationship. This value shows the focus on child development at an early age and the need of social workers to become more engaged early with children from troubled homes.

The second value maintains that the parent-child relationship is of vital importance; all efforts must be made to restore it. No child should be deprived of his or her natural

parents for economic reasons alone. If, for some extreme reason, a child's own parents cannot take care of him or her, another family is the best place for him or her. The child's own extended family is preferable to complete strangers.

The third value speak to the role of the foster parents in the foster care process. According to this value, the rights and interests of the child take priority over those of the parents in any plans affecting him or her. Natural parents and foster parents are to be understood as individuals with their own needs, but these needs cannot be permitted to affect the future of the child. If a child cannot be returned to his or her own family, whatever the reasons, the goal is to afford the child the needed security and feeling of belonging within the foster home by making arrangements permanent, preferably through legal adoption.

In addition to these three principal values, some scholars acknowledge three additional values for foster care. One value maintains that there should be a responsibility assumed by every community for seeing that a continuum of care and service is provided for children who must live outside their homes. No child should be lost because referrals are not made or adequate services are not available. Another value sets the goal for all children at minimal reasonable parenting, and this may not necessarily be tied to middle-class child rearing patterns. The final value is that criteria for evaluating foster parents should focus on their parenting abilities and their capacity to share these abilities with parents and agencies.

These values have helped to shape laws in the states and helped to define a foster care relationship. However, these values are not universally agreed upon. For example, how can one define what is in the best interests of the child? Is the best interest of the child going back to his or her natural parents? What if there is a history of abuse and domestic violence? These are all questions that have no easy answers. While one may be able to say that these values, in an ideal situation, may be good values, as was mentioned earlier, the foster care situation is not an ideal situation.

Another thing to consider about these values is that different decision makers may interpret these values differently. For example, what constitutes an extreme reason for taking a child away from his or her natural parents? What one person views as an extreme reason may be different than what another person views as an extreme reason. Another point of disagreement might be over what constitutes good parenting. Is spanking good parenting? Some may consider it to be so, while others may not. While the values may be perfectly reasonable, the interpretation of those values can turn into something that may be unreasonable.

The Foster Family

Research has indicated that "children who are placed in group homes are more likely to experience emotional disturbance and behavioral problems than those who are placed with families" (Perry 2006). According to Perry, this is because the foster family will

provide a less disruptive environment for a youth than a group home, because a family environment is more structured to his or her normal life. Most social workers want to put children in the least disruptive environment possible in order for them to either keep or regain stability in their life.

So how can a foster family do this? A foster family must exhibit five things to be successful: communication, integration, flexibility, compassion, and patience. How a child reacts to a new environment will be based on the amount of success the parents, social workers, educational administrators, and other members of the community react to the child based on these five factors.

It is important that, before the child even reaches the foster family's home, there is an open line of communication between all the people involved in the child's life. This includes the foster parents, the child's case worker, the school administrators of where the child is moving, and the relatives of the child, if possible. The case worker is the person who needs to start the communication line, but it is the responsibility of everybody involved, and especially the foster parents, to maintain that communication line through the child's stay with the foster family.

Successful communication leads to the next step, which is successful integration. This integration process can take several forms based on the child's background and emotional experiences. Care must be taken in this process, because if there is a possibility—as there is in most cases—that the child will go back to a natural parent, then the integration must be flexible to make sure that the child can reestablish those ties to the natural parents. A successful foster family must treat the foster child as if he or she was a member of their immediate family. They must realize, however, that this child's needs may be different than those of their own children's (if they have children), so the structure the foster child lives under could possibly be different than the structure their natural children live under. This also needs to be explained to the natural children or other foster children in the household before the foster child comes to live with them.

Once the child arrives and is put in school, the communication line must hold firm to make sure that the teachers understand the child's problems and the best ways to address those problems. Parents and teachers need to make sure that they have adequate records from the child's past schools, and they need to speak regularly to see how the child is integrating into the classroom, such as with making friends, doing schoolwork, and getting involved in extracurricular activities. The administrators at the school also need to be made aware of any special medications or learning disabilities the child has in order to set acceptable guidelines for the child to follow and create the best learning environment possible.

A foster family has to be flexible. Children coming into their care will come with a wide range of social problems. These parents must be flexible enough to know that they cannot deal with a child who has been sexually abused in the same way they deal with a child who has lost both parents in a car accident. The school system also must be flexible

enough to work with the parents and social workers to make the child's transition as smooth as possible.

The last two factors are interrelated: compassion and patience. If a foster family has compassion, they can begin to understand the problems the child is facing and work to find the help he or she needs. However, they must also be patient and realize that there are going to be bumps in the road. The process for a child whose social network has been severely disrupted is not short but a journey that the family will have to take with him or her throughout the child's entire stay.

Aging Out

Aging out refers to children who reach adulthood while in the foster care system. Each year, 20,000 children age out of the foster care program, and many of these children are still in need of support or services. Imagine a child who has just turned 18 and has been told to go out in the world with little to no social network. Imagining this leads a person to wonder not how a child learns to survive but how a child who is aged out is able to maintain his or her mental sanity. The unfortunate fact is that many of these children have a hard time coping with going out in the world without a social network. Only 2 percent of children who have aged out of foster care obtain a four-year college degree. Thirty percent of these children are without adequate health care, and 25 percent of these children have been homeless at some point in their life (Child Welfare League of America 2006).

These numbers for youths transitioning out of foster care are dramatic. They also cause one to pause and ask, what are the options? A system that can keep the children in foster homes a few more years in order to ease into the transition away from the foster care system is one avenue that probably needs to be examined. Also, scholarships for children in foster care for college or job training is another area that might be beneficial in assisting the transition from foster care to adulthood. Encouraging adoption may be another step in helping children to find a permanent family.

Although these ideas may ameliorate a crisis, they do not get to the root of the social problems that cause children to be placed in foster care. There needs to be an increased emphasis not only on what happens to children after they get out of foster care, but also preventing them from getting into foster care. Foster care is the intersection where all social problems meet, and, in order to stop children from entering the system, society must confront the social and structural problems within the country that created this intersection.

Conclusion

The future of foster care is complex, because it is not a uniform system. Each state has its own idea about how the system should work. All foster care agencies try to maintain certain values, but who interprets those values is a significant issue, and each state and even each judge can vary on those interpretations. Also, the state and federal funding

that is devoted to foster care is unstable and prone to budget cuts. The future of foster care is going to be based on how well society handles other social problems. If society confronts the challenges of poverty, homelessness, health care, and so forth, then the future of foster care may be optimistic. However, if society does not confront these challenges, then the future may not be as bright.

So what can we predict about the future of foster care in the United States? We know already that there is a strong correlation between race, poverty, and entry into the foster care system. With the growing ranks of minorities in the United States, especially minorities from Central and South America, it is possible that minorities will come to dominate the ranks of children in foster care even more than they do presently.

Immigration also brings about a host of questions about the legal status of immigrants in the United States. How the states handle the children of immigrants may depend on citizenship status. This classification of children who may be undocumented will probably lead to many other issues within the foster care realm. Not least among the issues could be a language barrier between the child and available foster families.

No discussion about foster care can be complete without discussing the Personal Responsibility and Workforce Opportunity Reconciliation Act of 1996, also called welfare reform. The goals of welfare reform were to promote two-parent families and work among single mothers. However, an unintended consequence of this reform may have been an increase in the children who enter foster care. In 1984, 2.5 percent of children under the age of 18 lived in families where neither parent was present. There was an almost 60 percent increase from 1984 to 1998, when 4.2 percent of children lived in families where neither parent was present. While only a portion of this increase can be attributed to the federal welfare reform that was passed in 1996, many states experimented with various elements of welfare reform beforehand. The increase in children in foster care from various welfare reform initiatives could lead to a decline in child well-being in the United States, especially among poor families.

The challenges facing social workers all across the country are not going to get any easier. In order for foster care to improve, the system has to be more flexible but at the same time more structured, focused on prevention, address aging out, and less prone to budget instability at the federal and state levels. Policymakers must become aware of the dilemmas that social workers face on an everyday basis and create laws accordingly. Foster care is a complicated system and one that will have huge social implications for children well into the 21st century.

See also **Child Abuse; Juvenile Delinquency; Poverty and Public Assistance**

Further Reading

Bernstein, Nina, *The Lost Children of Wilder: The Epic Struggle to Change Foster Care.* New York: Vintage Books, 2001.

Children's Defense Fund, http://childrensdefense.org

Child Welfare League of America, *Special Tabulation of the Adoption and Foster Care Analysis Reporting System.* 2006. http://ndas.cwla.org/data_stats/access/predefined/Report.asp?PageMode=1&%20ReportID=379&%20GUID={4859F5C2-DD74–4AF0-AD55–8360140347E3}#Table

Child Welfare League of America, *Quick Facts about Foster Care.* 2010. http://www.cwla.org/programs/fostercare/factsheet.htm

Curtis, Patrick A., G. Dale, and J. Kendall, *The Foster Care Crisis: Translating Research into Policy Practice.* Lincoln: University of Nebraska Press, 1997.

Krebs, Betsy, *Beyond the Foster Care System: The Future for Teens.* New Brunswick, NJ: Rutgers University Press, 2006.

Lindsey, D., *The Welfare of Children.* New York: Oxford University Press, 1994.

National Association of Former Foster Care Children of America, http://www.naffcca.org

National Foster Parent Association, *History of Foster Care in the United States.* 2007. http://www.nfpainc.org/content/index.asp?page=67&nmenu=3

Perry, Brea, "Understanding Social Network Disruption: The Case for Youth in Foster Care." *Social Problems* 53, no. 3. (2006): 371–391.

Pew Commission on Children in Foster Care, http://pewfostercare.org.

Stone, Helen D., *Foster Care in Question: A National Reassessment by Twenty-One Experts.* New York: Child Welfare League of America, 1970.

Wozniak, Danielle F., *They're All My Children: Foster Mothering in America.* New York: New York University Press, 2002.

G

GAMBLING

Daniel L. Smith-Christopher

The vast majority of Americans have gambled at least once. One can place bets on dog and horse races in 43 states, buy lottery tickets in 42 states, gamble for charity in 47 states, and play at commercial casinos in 11 states. As of 2010, all but two states (Hawaii and Utah) allowed some form of gambling. Gambling as a government-sponsored activity exploded in the late 20th century, and will clearly increase in the 21st century. Is gambling a moral and social problem? What are the social costs of problem gambling, and do they outweigh the social and economic benefits of increased state-sponsored gaming? Finally, how does the rise of Native American gambling in the late 20th century as a new income source for a traditionally deprived and impoverished minority population impact on the moral arguments for and against gambling? Although it may seem like a relatively recent social issue, the fact is that gambling has been a source of concern for many religious traditions for hundreds of years.

What Is Gambling?

Definitions of gambling are elusive, but a helpful suggestion has been made by M. D. Griffiths, a scholar and historian of gambling in Western culture, as "an exchange of wealth determined by a future event, the outcome of which is unknown at the time of the wager" (Dickerson and O'Conner 2006, 7). Gambling is therefore a type of a game in which financial loss or gain for the players is part of—or even the main point of—the results of the game. Games can be played exclusively for the financial aspects, or

financial aspects can be introduced to games that otherwise do not have gambling as their primary intention (e.g., betting on races or professional sports).

The controversies surrounding gambling stem largely from the large sums of money that can become involved. Left to small sums, there are few objections to introducing financial loss or gain to otherwise innocent pastimes. When, however, significant gains or losses are made part of the activity, gambling can become a storm center of debate that has strong religious involvement. The significant moral and social issues surrounding the tremendous growth of the gaming industry in the United States (and worldwide—Australian gaming is, per capita, much greater than in the United States) include concerns about the social costs of so-called addicted or pathological gamblers, of organized crime, and even of the equitable distribution of gaming earnings.

Gambling in Western History

Games of chance, often accompanied with serious consequences in winning or losing, have been a part of human civilization for as long as we have written records. In Gerda Reith's (1999) important study, she notes that gambling of one kind or another has been an aspect of human play from the dawn of civilization. In ancient Greece, Plato believed that play, including games of chance, were among the more noble aspects of human activities; his fellow ancient Greek philosopher, Aristotle, on the other hand, believed gaming to be wasted effort and time. While there has always been a minority view in Western culture that has seen gaming, and gambling, as largely an innocent pastime, there is a dominant second tradition that stands closer to that ancient view of Aristotle by considering gambling a negative human undertaking.

Lotteries are perhaps the most widely attested form of large-scale gambling in Western history, and state-supported lotteries that are recorded in medieval Europe as early as the 15th century were intended to help raise funds to pay for military fortifications.

Gambling and Moral Judgment

It is hard to separate the history of gambling in human civilizations with the history of the very idea of chance. Through a good part of human history, there was no such belief in chance—it was believed that all events reflected the will of gods, spirits, or guiding deities. Various ancient religions routinely practiced a kind of casting of lots or dicelike devices in order to discover whether gods or spirits agreed with the course of actions determined by humans (e.g., whether a battle should be started on a certain day or month).

It would be difficult to find specific biblical injunctions against gambling, and within Judaism and Christianity, for example, there is a history of tense coexistence with gambling, particularly from the perspective of historical Judaism and the Roman Catholic Church. However, there is a tradition of a more intensively negative view in the Protestant Christian tradition, with similarities to Aristotle's notion of waste, and, later,

LOTTERIES

Every day, millions of Americans stop by a local store or visit a Web site, plunk down a few dollars, and hope for a miracle. Very few who play state lotteries will ever win any significant sums, and everyone except a handful of jackpot winners is guaranteed to lose more money buying tickets than they will gain in (mostly small) prizes over a lifetime. Yet these millions of Americans seem happy to continue playing—happy that some of the proceeds go to fund popular state programs such as schools and parks, and happy for the chance, however remote, of striking it rich.

The regeneration of a state lottery industry in the United States—the term *regeneration* is apt—has been one of the most striking developments in state government in the past 40 years. The trend began in 1964, when New Hampshire created the first modern state lottery. New York and New Jersey soon followed. By the mid-1970s, there were a dozen state lotteries, mostly in the northeast. After a 1975 federal law allowed more lottery advertising, other states began to enter the gambling business. As of 2010, 43 states and the District of Columbia featured some form of state-sponsored lottery game. Many of these states also participated in multistate games with jackpots in the hundreds of millions of dollars. Players bought over $60 billion in lottery tickets in 2008, with net proceeds of nearly $18 billion flowing into state coffers to fund a variety of governmental expenditures (North American Association of State and Provincial Lotteries n.d.). Still, it is important to keep these figures in proper perspective. Lotteries represent about one-fourth of the commercial gambling industry in the United States, as measured by gross revenue. They generate less than 3 percent of total state revenues, and in no state does a lottery contribute more than about 7 percent of revenue (Hansen 2004).

State lotteries may not dominate the gambling business or pay for a significant swath of state government, but they have nevertheless accounted for some of the most spirited and passionate public policy debates held in state capitals over the past quarter century. Proponents and opponents have made a series of arguments, touching on a range of concerns and issues: education, elder care, land preservation, fraudulent advertising, tax equity, the initiative and referendum process, organized crime, economic development, family values, and the proper role of morality in lawmaking. The nature and persuasiveness of the arguments made during state-by-state battles to create lotteries reveal much about how public policy is made and understood by public officials and average citizens alike.

The policy debates about state-run gambling in the United States have been energetic, complicated, and lengthy. While a large majority of states now have some kind of state lottery, these policy debates promise to continue. Not only will lottery proponents continue their push to create lotteries in the remaining states, but even within lottery states, there are frequent pressures to authorize new drawings and multistate options, change the mix of payouts and revenue earmarks, and expand state-sponsored gambling to encompass sports betting and other games. Competition from Internet-based gambling operations, some operating outside the bounds of current state and federal law, may also have a significant effect on the operations and politics of state lotteries in the early 21st century.

—John M. Hood

its associations with other activities seen as sinful (e.g., drinking and other forms of excess and, even more recently, organized crime). There are Islamic religious traditions that question gambling in much stronger terms than either Catholic Christianity or Judaism.

From Sin to Foolishness: Changing Western Attitudes

As strictly religious attitudes lost influence on European societies during the Enlightenment (18th century), religious condemnations began to be replaced with ideas that gambling was an irrational and wasteful pastime. Such an attitude toward the foolishness, rather than the immorality, of gambling can be heard in a 1732 poem by Henry Fielding:

> A Lottery is a Taxation,
> Upon all the Fools in Creation;
> And heaven be praised,
> It is easily raised,
> Credulity's always in Fashion:
> For, Folly's a Fund,
> Will never lose Ground,
> While Fools are so rife in the nation
> (cited in Dickerson and O'Conner 2006, 2)

The Medicalization of Gambling: Problem and Pathological Gambling

It is in the 20th century that the notions of sinful gambling and irrational gambling began to be replaced with a medicalization of gambling as an illness that required intervention and therapy. Clearly, such attitudes were based on those cases where serious amounts of money were lost by those hardly able to handle such losses rather than on the minor or moderate amounts lost by casual gamers who fly to Las Vegas or Atlantic City in the United States for a few days of vacation.

A good part of the ancient and medieval opposition to gambling was based precisely on this notion that gambling was engaging in a kind of *secular* or *antireligious* consulting of higher powers. It is only when the very notion of *random chance* begins to be a widely held idea that gambling moves from being considered an irreligious activity to one that is considered irrational because of the randomness of such gaming, and, as an understanding of random actions and chance increased, so the awareness of risk in games of chance became a growing feature of the arguments of those who opposed this activity.

Finally, Reith points out that, as market economies developed in the West, attitudes toward gambling and risk-taking games changed from a religious view to views of its *risky character* or as a calculated opposition to high risk. One should engage in money-making activities that minimize risk, not only in business but also in leisure-time

activities. As money making became quite literally a way of life for a growing class of merchants, the minimizing of risk also became a way of life—extending to leisure as well as work.

Some have argued that the gambling debate has been largely *overruled* by the very success of the industry and the dependence on that industry in many local economies around the United States. The debate continues to focus, however, on the issue of "problem gamblers."

Problem Gambling and Pathological Gamblers

The Australian Institute for Gambling Research has defined *problem gambling* as "the situation where a person's gambling activity gives rise to harm to the individual player, and/or his or her family, and may extend into the community" (Dickerson and O'Conner 2006, 11). Studies conducted by the National Opinion Research Center (NORC) at the University of Chicago examined social and economic changes attributed to *casino proximity*—a casino within 50 miles of a community—in 100 samples, and the federal government issued a major report by the National Gaming Impact Study Commission in 1999. The conclusions suggested that between 1 and 2 percent of gamblers (approximately 3 million people) can be classified as *pathological gamblers,* and another 3 to 4 percent are termed *problem gamblers* (about 3 to 8 million people), but it is clear that the vast majority of gamblers engage in gambling without measurably negative social or economic impact on themselves or their families. The NORC study concluded that the total societal costs of problem gambling were $4 billion each year but noted that this is a fraction of the social costs incurred by society in relation to drug and alcohol abuse, mental illness, heart disease, and smoking.

Pathological gambling, on the other hand, has a recently defined set of diagnostic criteria according to the American Psychiatry Association. Among the more common criteria with which to diagnose pathological gaming are assessing whether a person: (1) is preoccupied with gambling (constantly thinking about past games and getting money for future betting); (2) needs to gamble with increasing amounts of money to achieve desired level of excitement; (3) has repeated unsuccessful efforts to control, cut

GAMBLERS ANONYMOUS

Gamblers Anonymous is a popular 12-step program for problem gamblers modeled on Alcoholics Anonymous (AA). It is free and widely available, with over a thousand chapters in the United States. As in AA, participants in Gamblers Anonymous are encouraged to admit their powerlessness over their gambling problem and to invoke a higher power to help them conquer this problem. They are encouraged to seek support from their peers and from an assigned sponsor in overcoming their habit and to make amends to family members and others whom their gambling behavior has harmed.

back, or stop gambling; (4) is restless or irritable when attempting to cut down or stop gambling; (5) after losing money gambling, often returns another day to get even (chasing one's losses); (6) lies to family members, therapists, or others to conceal the extent of involvement with gambling; (7) has jeopardized or lost a significant relationship, job, or educational career opportunity because of gambling; and (8) relies on others to provide money to relieve a desperate financial situation caused by gambling.

Furthermore, the NORC study concluded that the presence of a casino in or near a community did not significantly increase crime; in some cases, small decreases in crime were noted.

On the other hand, opponents of gambling pointing out that, although the percentage of gamblers who are problem gamblers is low, it is precisely these problem gamblers who are among the most profitable clients of gambling establishments, and therefore they are the least likely institutions to argue for limitations on, or assistance for helping, problem gamblers who may wish to end their destructive behaviors.

Native American Gaming

One particularly interesting factor in the consideration of gambling as a social and moral issue is the rise of Native American gambling as a major industry on Indian land. Indian gambling is defined as gaming (including, but not limited to, casinos) conducted by a federally recognized tribal government and taking place on a federally established reservation or trust property. Although gaming brings in critically needed funds for often impoverished peoples, the total amount accounts for less than a quarter of the gambling industry revenues nationwide each year. A study written in 2005 found that 30 states are home to more than 350 tribal gaming establishments, operated by over 200 tribes that have decided to pursue gaming as a strategy for economic development (Light and Rand 2005).

About one-third of the approximately 560 tribes in the United States recognized by the federal government conduct casino-style gaming on their reservations. In some cases, tribes are located in states that do not allow any form of gambling (notably Utah), but, in other cases, the tribes have resisted gambling as a source of income—the most famous case being the Navajo, undoubtedly noteworthy because of their large population among Indian nations in the United States.

Nearly half of all tribal gaming enterprises earn less than $10 million in annual revenue, and one-quarter earn less than $3 million each year. On the other end of the spectrum, about 40 tribal casinos (or about 1 in 10) take in two-thirds of all Indian gaming revenues.

Before the rise of Indian gaming, the options available to many Indian tribes were quite limited. Often located on land considered useless to other Americans, Indians have traditionally suffered some of the highest unemployment in the United States, and have historically attracted the least economic investment.

NATIVE AMERICAN GAMBLING ENTERPRISES

Over the past two decades, gambling has grown exponentially in the United States owing in no small measure to Indian gaming, or the operation of gambling casinos on Native American reservations. By 2008, a peak year, revenues from such casinos had reached nearly $27 billion, according to the National Indian Gaming Commission. States and local communities throughout the nation continue to debate the merits of tribal casinos. Among the issues raised are the right of a marginalized population to self-governance and the pursuit of economic revival; the need of income-starved states for tax revenues and job opportunities; and the interest of the public in curtailing any potential harm from increased access to gaming, such as unregulated gambling, individual "addiction" (pathological gambling), and criminal activity.

In the 1970s and 1980s, a number of Indian tribes used their unique position as sovereign bodies within the United States to push for the development of games such as high-stakes bingo on tribal lands. As the number of proposals increased and as states and surrounding communities began to take a greater interest in these operations, the United States Congress was pressured to act. The resulting Indian Gaming Regulatory Act (IGRA) of 1988 established the terms for how Indian tribes could run bingo parlors and casinos, requiring public forums to discuss major issues (such as the building of new casinos) along with binding contracts setting out how gaming operations are to be conducted. Currently, the leading Indian gaming states are California and Oklahoma with, respectively, $7.3 billion and $2.9 billion in revenues generated in 2009.

While not distributed evenly among all Native Americans in the United States, it is impossible to deny that Indian gaming has initiated dramatic changes for the better for Native American tribal groups throughout the country. According to the 2007 Economic Census, while 13 percent of the total U.S. population fell below poverty level, nearly one-third of Native Americans lived in poverty, with unemployment rates reaching as high as 50 to 80 percent in some cases. But as a direct result of gaming, total Native American unemployment is down, educational opportunities have increased, and economic development in other areas of local investment is occurring. Furthermore, there appears to be relative consensus across available research that Indian gaming generates direct, indirect, and induced economic benefits for state and local communities.

From a Native perspective, tribes are independent nations by treaty rights, and therefore there is already a high level of compromise with state governments, which have significantly benefited from profit-sharing arrangements. In Native terms, reservation lands are to be seen in the same way as the federal government recognizes a foreign country, and there ought to be no more resentment, interference, or taxation imposed on them—any more than the United States would expect to impose taxes or rules, for example, on Canada or Mexico, if either country should build a casino near the U.S. border. From many federal and state governmental perspectives, however, there is a limit to

tribal sovereignty, and, thus, modern arrangements worked out between tribal and state governments on revenue sharing already represent a significant compromise between the two historically different perspectives on the meaning of tribal sovereignty.

A number of issues have been raised, particularly by Native gaming, that have further complicated this special aspect of the overall issue of gambling. First, the success of many Indian gaming establishments has lent new urgency to those Indian groups seeking federal recognition. However, even though many of these groups have struggled for federal recognition for decades, there is a new pressure on the federal government to impose limits on such recognition because of the widely held belief that gambling opportunities are what is really behind groups seeking federal recognition. There are well over 250 Native groups seeking tribal recognition in the United States.

Second, tribal groups have sought to expand their land claims and work in partnership with outside gambling industry investors to increase their development. Why the Native developers are blamed for this, as opposed to the non-Native investors and industries that are investing in their projects, however, is often hard to determine—other than viewing it from the perspective of long-term prejudices and racism.

Third, Native economic development has resulted in new political clout. Once again, however, heavy investment in the political process by interested parties that include defense contractors, agricultural interests, and oil and automotive companies do not often raise the same concerns—and one can argue that Native Americans are simply exercising their economic power as others have done for a long time.

Conclusion

While there are no clear or direct religious teachings for or against gambling in religious traditions such as indigenous, Islam, Judaism, and Christianity, the increasing levels of personal risk, and the increasingly serious financial implications of professional gambling institutions, continue to make it a controversial activity from the perspective of many major religious traditions. In recent years, the medicalization of gambling has changed the terms of debate from an older religious-based argument about risk or about challenging the spirits or even testing God, to a debate about addictive and destructive behaviors that perhaps ought to be monitored in portions of the population in the same way that other medical or health risks are monitored as part of the responsibility of civil society.

See also **Addiction and Family; Consumer Credit and Household Debt (vol. 1); Internet (vol. 4)**

Further Reading

Barker, Thomas, and Marjie Britz, *Jokers Wild: Legalized Gambling in the Twenty-first Century.* Westport, CT: Praeger, 2000.

Castellani, Brian, *Pathological Gambling: The Making of a Medical Problem.* Albany: State University of New York Press, 2000.

Clotfelter, Charles T., and Philip J. Cook, *Selling Hope: State Lotteries in America.* Cambridge, MA: Harvard University Press, 1989.

Collins, Peter, *Gambling and the Public Interest.* Westport, CT: Praeger, 2003.

Dickerson, Mark, and John O'Conner, *Gambling as an Addictive Behaviour: Impaired Control, Harm Minimisation, Treatment and Prevention.* New York: Cambridge University Press, 2006.

Hansen, Alicia, *Lotteries and State Fiscal Policy.* Background Paper 46. Washington, DC: Tax Foundation, 2004.

Light, Steven Andrew, and Kathryn R. L. Rand, *Indian Gaming and Tribal Sovereignty.* Lawrence: University Press of Kansas, 2005.

McGowan, Richard A., *The Gambling Debate.* Westport, CT: Greenwood Press, 2008.

Morse, Edward A., and Ernest P. Goss, *Governing Fortune: Casino Gambling in America.* Ann Arbor: University of Michigan Press, 2007.

Mullis, Angela, and David Kamper, eds., *Indian Gaming: Who Wins?* Los Angeles: UCLA Indian Studies Center, 2000.

National Gambling Impact Study Commission, http://govinfo.library.unt.edu/ngisc

North American Association of State and Provincial Lotteries, "Resources," n.d. www.naspl.org

Pasquaretta, Paul, *Gambling and Survival in Native North America.* Tucson: University of Arizona Press, 2003.

Pierce, Patrick Ann, *Gambling Politics: State Government and the Business of Betting.* Boulder, CO: Lynne Rienner, 2004.

Reith, Gerda, *The Age of Chance: Gambling in Western Culture.* London and New York: Routledge, 1999.

GANGS

Karen L. Kinnear

Most young people join some type of social group. These groups help youths develop social skills, fulfill many of their emotional needs, offer an environment in which they are valued, provide them with goals, and give direction and structure to their lives. Some youths join groups that society considers prosocial, or are of benefit to society, such as Boy Scouts or Girl Scouts, Little League, or fraternities and sororities. Others will join groups that are considered antisocial, such as gangs.

What Is a Gang?

One of the first problems encountered by those who study gangs and gang behavior is how to define a gang. Is it just a group of people who hang around with each other? Can adults in a group be defined as a gang? Do the people in the group have to engage in some type of criminal behavior? From youths roaming the streets in Los Angeles following the riots in 1992 to youths rioting in Tonga in 2006 following demonstrations over a democratic government, news organizations refer to these groups as "gangs of youths" or "youth gangs." Defining gangs is often a highly political issue that reflects the

interests and agendas of the various individuals and agencies involved, including law enforcement personnel, politicians, advocates, social workers, the media, and researchers.

Despite these conflicting views, several major elements can be found in most current definitions of gangs: a group of people, some type of organization, identifiable leadership, identifiable territory, use of symbols, a specific purpose, continual association and existence, and participation in some type of illegal activity. Most gangs today have other behaviors in common: they use graffiti to mark their territory and communicate with other gangs; they dress alike, often adopting a particular color as a gang color (for example, red for the Bloods, blue for the Crips); they often tattoo themselves with gang names or symbols; they abide by a specific code of conduct; they have their own specific language; and they have their own set of hand signs that help them recognize other members of their gang.

Gang Organization

Gangs are organized in a variety of ways, depending on their primary purpose, their level of structure, and the degree of control that the gang leaders have. Taylor (1990) categorized gangs as scavenger gangs, territorial or turf gangs, and instrumental or corporate gangs. Scavenger gangs are loosely organized and provide their members with a purpose for their lives. Many members are low achievers or school dropouts and are likely to exhibit violent behavior. Their crimes are usually not serious and are spontaneous. Territorial gangs may claim blocks, neighborhoods, specific buildings, or even schools as their home turf. These gangs are highly organized and have elaborate initiation rites as well as rules and regulations for controlling members' behavior. Members usually wear gang colors. Instrumental or corporate gangs usually have a clearly defined leader and a finely defined hierarchy of leadership, often a military-type structure. Crimes are committed for a specific purpose, usually profit of some sort, and not just for fun. Gangs may start off as scavenger gangs and, over time, become instrumental or corporate gangs.

Gangs are also made up of a variety of member types. "Wannabes" are usually younger people who want to become gang members or are seen as potential recruits by current members. Core members and leaders are more likely to be involved in the major activities of the gang. Veterans or "O.G." (for "old gangsters" or "original gangsters") are usually older youths or adults who are not actively involved in gang activity, have the respect and admiration of younger gang members, and work with gang leaders to help them achieve their goals.

Joining a Gang

Many theories attempt to explain why juveniles join gangs. Several of these theories are sociological in nature, focusing on structural and dynamic variables as causes of gang formation and behavior. Some of these variables include social environment, family, and economic conditions and opportunity. Most of the theories fall into one of six categories: bonding and control theory, opportunity and strain theory, labeling theory,

subcultural or cultural conflict theory, social disorganization theory, and radical or sociopolitical theory.

Bonding and Control Theory

Family processes and interaction play a particularly important role in developing social bonds that may prevent young people from committing delinquent or criminal acts. Families of delinquents may spend little time together and provide less support and affection than families of well-behaved youths; parents may provide little or no supervision for their children. Bonding theory suggests that children who miss out on multiple opportunities to learn socially appropriate behavior may be more likely to join gangs.

Opportunity and Strain Theory

If young people do not believe that they have an equal opportunity to achieve the American dream of success, power, and money, they may grow up frustrated and may develop a sense of hopelessness, believing that they will not receive the same things from society as other people. The resulting depression or anger can lead to delinquent behavior. Prothrow-Stith (1991) believes that juveniles join gangs, including violent gangs, only when they believe that their future opportunities for success are limited.

Labeling Theory

According to sociologist George Herbert Mead (1934), an individual's self-concept is derived from how others define that individual. This concept provides the basis for labeling theory, which some have called self-fulfilling prophecy. Several theorists have applied this theory to juvenile delinquency. Goldstein (1991) believes the initial act of delinquent behavior (primary deviance) is not important in labeling theory; the subsequent delinquent acts perpetrated in reaction to society's response to the initial act (secondary deviance) are relevant.

Cultural Conflict or Subcultural Theory

Some researchers believe that delinquent behavior results from an individual conforming to the current norms of the subculture in which he or she grows up, even though these norms vary from those of the larger society (Thornton and Voight 1992). Youngsters who grow up in areas that have high crime and delinquency rates may come to believe that crime and delinquency are normal aspects of everyday life and therefore do not think that they are doing anything wrong when they misbehave or commit a crime.

Social Disorganization Theory

Thrasher (1927) was one of the first to propose social disorganization theory to explain why youths find gangs so compelling: youth join gangs because they do not feel connected to the existing social institutions. Thrasher believed these youth joined gangs because, to them, the gang was their own society, one that provided all of the gang

member's needs. According to this theory, the formation of gangs is not abnormal, but rather a normal response to an abnormal situation (Spergel 1995). High rates of delinquency in an area indicate that social problems are present and may lead to gang formation (Delaney 2006).

Radical Theory

In the late 1970s, several researchers developed a sociopolitical perspective on crime and delinquency known as radical theory or the "new criminology." Believing that laws in the United States are developed by and for the ruling elite, radical theorists hold that these laws are used to hold down the poor, minorities, and the powerless (Bohm 2001).

Social Factors

As can be seen from the many theories concerning the existence and growth of gangs, many factors interact to lead youth to join gangs. Growing up in U.S. society today can be a challenge. When young people have little structure in their lives, when they have no purpose or can see no reason to excel in school, they may be more likely to join gangs. The gang gives their lives structure, makes them feel important and useful, protects them from a violent environment, and provides some sense of safety in numbers. Gang members are loyal to each other and to the gang, their group gets special attention in the community, and their association may provide financial rewards if the gang is selling drugs or involved in other criminal activities. Excitement is a part of gang life; members can get an adrenaline rush from some of their activities, and they may feel empowered by the backing and respect of other gang members.

Racial/Ethnic Gangs

Gangs frequently are composed of members from the same race or ethnic group, although a growing number of gangs are referred to as hybrid gangs. Whites usually join white gangs, Hispanics usually join Hispanic gangs, and African Americans usually join African American gangs. Researchers have found that these racial/ethnic gangs have several characteristics that are specific to their gangs.

Hispanic Gangs

Hispanic or Latino gangs generally have four levels of membership: peripheral, general, active, and hard core. Peripheral members identify with the gang but do not actively participate in the gang, especially in the criminal activities. General members readily identify themselves with the gang but are still working to gain respect. Finally, the hard-core members are active participants in the gang's criminal activity; in fact, these members are the ones who are in leadership positions. Hispanic gang members often set themselves apart from other gangs by using a slang language that is a combination of English and Spanish.

African American Gangs

According to several researchers, African American gang members stay in their gangs longer than gang members from other racial/ethnic groups. This can be explained in part by the lack of economic opportunities available to these youths. Spergel (1995) believes legitimate opportunities for African American youth to participate in viable economic activities are more limited than in any other community.

Asian Gangs

Asian youth may join gangs for many of the same reasons youth from other cultures join them. Asian youth whose parents are fairly new to the United States may feel alienated, overwhelmed, and out of place. The language barrier and other obstacles may encourage these youth to band together for protection and support. Asian gangs are usually organized for economic reasons, and members rarely commit crimes against other cultural or racial groups.

White Gangs

White gangs have the longest history among all racial/ethnic gangs; they were especially prominent in the late 1800s and early 1900s as many Europeans immigrated to the United States. In addition to the typical youth gang, white groups identified as gangs include stoners, heavy metal groups, satanic worshipers, bikers, and skinheads. White supremacist groups are popular gangs in many areas of the United States. They believe in the doctrines of Adolf Hitler and may be tied in with the Ku Klux Klan and the neo-Nazi movement. They dislike African Americans, Asians, Hispanics, Jews, gays, lesbians, Catholics, and any other group that they do not consider part of the white Aryan race.

Native American Gangs

Gang activity on Native American reservations is difficult to measure, in large part because reservations vary greatly in size and include both rural and urban areas. Research has indicated that gang activity on reservations primarily consists of unstructured and informal associations among youth (Major and Egley 2002). Native youth who have moved off the reservation and then return to the reservation may bring their gang associations with them and attempt to recruit new members. Some researchers believe that there is a direct causal relationship between the loss of cultural identity among the Native American children and their families and the problems of substance abuse and gangs on the reservation (Kilman 2006).

Hybrid Gangs

Hybrid gangs may have members from more than one ethnic group or race, members who participate in more than one gang or use symbols or colors from more than one gang, or rival gangs that cooperate in certain, often criminal, activities (Starbuck,

Howell, and Lindquist 2001). Communities throughout the United States are seeing an increase in the number of hybrid gangs, especially communities that had little or no gang activity prior to the 1980s or 1990s. Hybrid gangs may pose a serious problem to local law enforcement agencies because they do not mimic traditional gang characteristics or behavior; local law enforcement agencies may be lulled into a false sense of security, believing that their community does not have any gang activity.

Gang Alliances

Beginning in the 1960s, gangs began to adopt a variation of a common gang name, in essence, becoming a branch of another gang. For example, in Chicago, local gangs included the War Lords, California Lords, and Fifth Avenue Lords, all claiming to be related to and part of the Vice Lord Nation (Miller 2001).

The 1980s saw the expansion of gang alliances. Each alliance had its own set of symbols and other means of identifying and separating it from other gangs and gang alliances. Examples of these alliances include the People Nation (composed of Bloods [West Coast], Latin Kings, Vice Lords, El Rukn, Bishops, and Gaylords) and the Folk Nation (composed of Crips, Black Gangster Disciples, Black Disciples, Latin Disciples, and La Raza). Incentives for forming these alliances include the power associated with being part of a larger and more powerful organization and the coverage by the news media of these alliances, which creates publicity for these alliances.

Females and Gangs

Early studies of gangs usually did not consider females associated with gangs as gang members. They were seen, if at all, as girlfriends of gang members with only a superficial interest in gang activities. More recently, the role of the female has expanded to include a secondary role in gang activities. Females often are seen as providing help and support to male gang members by carrying weapons, offering alibis, and gathering information on rival gang members. Some female gangs are allied with a particular male gang, while others are totally autonomous. African American and Hispanic females are the most likely to participate in gang activities, although white and Asian females are forming and joining gangs in increasing numbers.

Gang Migration

Researchers are beginning to study gang migration—the movement of gang members from one area to another and the subsequent development of gangs in those new locations. In communities that are seeing the appearance of gangs in recent years, authorities believe that migratory gang members are moving into the area and recruiting local youth to establish a new branch of a gang. These migratory gang members may be seeking new sources of revenue through the development of drug distribution or other money-making criminal activities. Known as the importation model, this strategy involves attempts by gang members to encourage the growth of their gang in new cities and is often used

to establish new money-making criminal enterprises (Decker and Van Winkle 1996). Knox and his colleagues (1996) refer to this as gang franchising, while Quinn and his colleagues refer to it as gang colonization (Quinn, Tobolowsky, and Downs 1994).

Gangs and Violence

Most experts agree that gang activity increased significantly during the 1980s and 1990s and continues to spread throughout the country today. Law enforcement, community organizations, and the news media offer many gang members the recognition that they crave. Stories about gang activities and gang violence are a concrete example to gang members that their gangs and their actions are important. In fact, some researchers believe that the news media influence the general public's view of gangs and creates the impression that gangs are more widespread and violent than they actually are. Prothrow-Stith (1991) explains that some inner-city youths believe the only way they can get any attention or recognition is to join a gang and participate in some type of criminal activity.

Researchers believe that a variety of factors have led to increasingly violent behavior on the part of gang members. The major factors are guns, territory, and drugs. Guns have become the weapon of choice for gang members, who are more likely to carry and to use guns than other juveniles. Gang members are able to obtain guns through both legal and illegal means. Gang members believe carrying a gun gives them increased power and masculinity, and they assume that their rivals are carrying a weapon, which justifies their possession of a weapon (Delaney 2006).

As the distribution and sale of drugs became more popular and profitable for gangs, the amount of territory that a gang controls became more important. Territory played a critical part in the life of many gangs as they built their power and influence. However, today that focus on territory may be changing. According to the National Youth Gang Center (2000), modern youth gangs are less focused on maintaining a certain territory than gangs in earlier years.

Even though a gang member sells drugs, it does not necessarily follow that he or she also uses drugs. In fact, some gangs involved in the distribution of drugs do not allow members to become users. For example, Ko-Lin Chin (1990) found that, while many of the early Chinese gangs in New York City distributed heroin, most of these gangs refused to use heroin themselves. Some researchers believe that gang structure is not conducive to organized drug dealing—gangs are too unorganized, unfocused, and unable to effectively operate a serious drug organization, and the gang-drug connection has been overstated (Klein, Maxson, and Cunningham 1988; Spergel 1995).

Why Youths Leave Gangs

Some individuals are able to walk away from gang activity on their own, without the help of outside intervention. As a youth gets older, he may lose interest in the gang, viewing the gang as a dead end (literally or figuratively). Or she may find other activities or interests that become more important than the gang. Others decide that they do not

like or support violent activities. Some youth may discover that gang life does not meet their expectations. Finally, some gang members may discover that they are being used or exploited by the leadership and decide that they want to be needed, not used. In some cases, the home environment may improve, reducing the need for a youth to join a gang to feel part of a family. Some youths may realize that the benefits of being in a gang are not worth the increased likelihood of being incarcerated for gang activity.

Positive Function of Gangs

For the most part, young people are hurt by gang membership: they may get shot or killed, they may commit criminal acts, and they may end up in jail or prison. However, Klein (1995) found that there are positive aspects to gangs and gang life. For example, many young people who join gangs gain a measure of self-confidence and self-respect, and, in some cases, these young people will eventually see that gangs cannot give them what they want in life and will leave their gangs. In some cases, the skills that gang members learn, such as cooperation, organization, and teamwork, can be used to improve their neighborhoods and their futures, if applied in the right way. Finally, gangs may have a stabilizing effect on the communities in which they are found, by uniting communities against them and providing activities for the children and a focus on keeping the next generation out of gangs.

See also **Juvenile Delinquency; Gang Injunction Laws (vol. 2); Juvenile Justice (vol. 2); Juveniles Treated as Adults (vol. 2)**

Further Reading

Bohm, Robert M., *Primer on Crime and Delinquency Theory,* 2d ed. Belmont, CA: Wadsworth, 2001.

Chin, Ko-Lin, *Chinese Subculture and Criminality: Non-traditional Crime Groups in America.* New York: Greenwood Press, 1990.

Decker, S., and B. Van Winkle, *Life in the Gang.* New York: Cambridge University Press, 1996.

Delaney, Tim, *American Street Gangs.* Upper Saddle River, NJ: Prentice-Hall, 2006.

Goldstein, Arnold P., *Delinquent Gangs:* A *Psychological Perspective.* Champaign, IL: Research Press, 1991.

Kilman, Carrie, "Learning Lakota." *Teaching Tolerance* 2 (2006): 28–35.

Klein, Malcolm, *The American Street Gang: Its Nature, Prevalence, and Control.* New York: Oxford University Press, 1995.

Klein, Malcolm W., Cheryl L. Maxson, and Lea C. Cunningham, "Gang Involvement in Cocaine 'Rock' Trafficking." Project Summary/Final Report, Center for Research on Crime and Social Control, Social Science Research Institute, University of Southern California, Los Angeles, 1988.

Knox, G. W., et al., "Addressing and Testing the Gang Migration Issue." In *Gangs: A Criminal Justice Approach,* ed. J. M. Miller and J. P. Rush. Cincinnati: Anderson, 1996.

Major, Aline K., and Arlen Egley Jr., *2000 Survey of Youth Gangs in Indian Country. NYGC Fact Sheet #1.* Washington, DC: National Youth Gang Center, 2002.

Mead, George Herbert, *Mind, Self and Society.* Chicago: University of Chicago Press, 1934.

Miller, Walter B., *The Growth of Youth Gang Problems in the United States: 1970–1998.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention, 2001.

National Youth Gang Center, *1998 National Youth Gang Survey.* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, 2000.

Prothrow-Stith, Deborah, *Deadly Consequences: How Violence Is Destroying Our Teenage Population and a Plan To Begin Solving the Problem.* New York: HarperCollins, 1991.

Quinn, J. F., P. M. Tobolowsky, and W. T. Downs, "The Gang Problem in Large and Small Cities: An Analysis of Police Perceptions in Nine States." *Gang Journal* 2 (1994): 13–22.

Spergel, Irving A., *The Youth Gang Problem: A Community Approach.* New York: Oxford University Press, 1995.

Starbuck, David, James C. Howell, and Donna J. Lindquist, "Hybrid and Other Modern Gangs." *Juvenile Justice Bulletin.* Washington, DC: Office of Juvenile Justice and Delinquency Prevention, 2001.

Taylor, Carl S., *Dangerous Society.* East Lansing: Michigan State University Press, 1990.

Thornton, William E., and Lydia Voight, *Delinquency and Justice,* 3d edition. New York: McGraw-Hill, 1992.

Thrasher, Frederic, *The Gang.* Chicago: University of Chicago Press, 1927.

GAY PARENT ADOPTION

Jeffrey Jones

Gay parent adoption or same-sex adoption refers to the adoption of children by individuals who prefer romantic partners of the same sex—gays and lesbians. Same-sex adoption is portrayed by the media as being a potentially good thing but with potentially detrimental side effects, most notably for the adopted children. This type of adoption is often made to look as if it might well be done but perhaps should not be for the sake of the children involved. With groups such as the religious right, fundamentalist Christian denominations, and private religiously affiliated adoption agencies backing the opposition to adoption by gays and lesbians and, on the other side, the American Civil Liberties Union, the Human Rights Campaign, and various LGBT (lesbian gay bisexual transgender)-friendly groups making up the proponents, the battle over same-sex adoption is well defined and entrenched in a deep and long-standing debate. That battle begins with the media and its portrayal of gay parent adoptions as against the agencies and advocacy groups and their perspectives on placing children in the homes and care of homosexual individuals.

Background

Adoption remained for a long time a rather homogeneous action, with the placement of children in the homes of middle-class, married couples. Over the course of the last three

decades, adoption went through a metamorphosis, from being merely a source for married, middle-class couples to create families to being a pathway for a number of diverse and sometimes marginal populations to establish families of their own. According to estimates prepared by the Adoption and Foster Care Analysis and Reporting System, some 123,000 children in the public child welfare system were waiting to be adopted in late 2008. The average age of children awaiting placement in adoptive homes was between six and seven years of age. Many of these children who were awaiting adoption spent 38 consecutive months in foster care. That same year, only 55,000 children were adopted from public welfare agencies. Those who were adopted ranged in age from infants to teenagers and differed in race from Latino to white to African American. The adoptive parents were also diverse: 28 percent were single women, 3 percent were single men, and 2 percent were unmarried couples. Among these adoptive parents was a select group of gay and lesbian individuals and partners.

According to Ada White, director of adoption services for the Child Welfare League of America, many agencies do make placements with gay or lesbian parents, but they do not necessarily talk about these adopters. Agencies are not specifically tracking such adoptions and do not intend to track them. Consequently, the practice of adoption with many of these agencies is that they may place these children in homosexual homes but are not willing to make it public knowledge that they are doing so. The adoption of children by homosexual parents is often done so that others' knowledge of its occurrence remains minimal. The practices of adoption vary greatly from state to state and region to region and even from judge to judge. The Human Rights Campaign, the nation's largest gay and lesbian advocacy organization, has conducted research to determine that 21 states and the District of Columbia allow gay adoption. This would not be the case if the religious right had its way. It is suggested that the ability for gay and lesbian individuals to adopt would become much more limited, with a minimal number of states being welcoming of gay adoption.

Laws and Research

New Jersey was the first state to specify that sexual orientation and marital status could not be used against couples seeking to adopt. New Jersey also allows second-parent adoption, a legal procedure in which a coparent can adopt the biological or adopted child of his or her partner. New York soon followed, granting second-parent adoptions statewide and forbidding discrimination in adoption proceedings. California joined the party by enacting new domestic partnership legislation that legalized second-parent adoptions. On the opposite end of the spectrum, a number of states exclude gays and lesbians from adopting either as primary or as secondary adoptive parents. Florida stands out among the states in that gay adoption has been banned since 1977. Utah prohibits adoption by any unmarried couple or individual, regardless of sexual orientation. While Mississippi does not actually ban gay and lesbian individuals from adoption, same-sex couples are

absolutely prohibited from adopting. The laws regarding same-sex adoption within most states are not actually on the books and are similar to accepted (or not accepted) practices within each state—based more on tradition than on legal precedent.

Since the turn of the millennium, there has been an increase in the number of children within the child welfare system in need of homes and a growing acceptance of nontraditional families looking to adopt them. Among those opposed to such adoptions, however, such as the religiously based organization Focus on the Family, there is a strong sentiment that placing children in the care of gay and lesbian individuals or partners is not in the best interest of the children. In April 2001, researchers Judith Stacey and Timothy Biblarz of the University of Southern California published findings regarding this issue in the *American Sociological Review.* The duo examined 21 studies concerning the effects of gay parenting. Their meta-analysis concluded: "There were subtle differences in gender behavior and preferences. Lesbian mothers reported that their children, specifically their daughters, were less likely to conform to gender norms in dress, play or behavior; more likely to aspire to nontraditional occupations, such as doctors or lawyers. They also discovered that children of gay and lesbian parents are no more likely to identify themselves as gay or lesbian than the children of heterosexual parents" (Stacey and Biblarz 2001). The latter part of their summary corresponds to what one might consider to be a fear among a majority of adoption agencies and judges—that children placed in homosexual-parented homes stand a greater chance than those in the general population of coming out as homosexuals. This suggests that the environment of a homosexual family is instrumental in the child's development as a gay person. This argument is regarded as a fallacy among members of the liberal left and by more and more of the general public, as the alternative, biological model of the origin of sexual orientation gains support. A similar aspect of the right's argument against the placement of children in homosexual-parented homes is that being raised in this fashion will have psychologically detrimental effects on the children. Stacey and Biblarz, in contrast, found that children of homosexual parents showed no difference in levels of self-esteem, anxiety, depression, behavior problems, or social performance but do show a higher level of affection, responsiveness, and concern for younger children, as well as seeming to exhibit impressive psychological strength.

Stacey and Biblarz also report that gay parents were found to be more likely to share child care and household duties. The children of gay partners reported closer relationships with the parent who was not their primary caregiver than did the children of heterosexual couples. The increase in affection and higher psychological strength that this study shows is, arguably, just part of the positive effects that gay adoption can have on children. In opposition to these and similar findings, however, are those who continue to believe that only heterosexual couples should adopt and that homosexuality is morally wrong. Some even claim that gays and lesbians are likely to abuse their children (see Stacey and Biblarz 2001).

The American Psychological Association (APA) has adopted the view that same-sex adoption is fine, as long as the best interests of the children are served in particular cases. In its Resolution on Sexual Orientation, Parents, and Children, from July 2004, the organization noted that, in the 2000 U.S. Census, 33 percent of female same-sex couple households and 22 percent of male same-sex couple households reported at least one child under the age of 18 living in the home. Opponents have expressed concerns over the idea of a minor living in a homosexual-parented household. Yet, according to research cited by the APA, there is no scientific basis for concluding that lesbian mothers or gay fathers are unfit parents based solely on their sexual orientation, and moreover households maintained by these individuals clearly can provide safe, nurturing, and loving environments in which to raise children.

The proponents of same-sex adoption argue in favor of the practice on the basis that both past and present research shows no difference in the health and success of the children of lesbian and gay parents as compared to the children of their heterosexual counterparts. There is no definitive indication of a disadvantage among children of gay and lesbian parents on the basis of their parents' sexual orientation. Home environments with gay or lesbian parents are just as likely to provide solid foundations of comfort and compassionate understanding as the homes of heterosexual couples. Data such as these supported the decision by the American Academy of Pediatrics to issue a policy statement endorsing adoption by same-sex couples.

In the view of opponents, homosexual parents do not act in the best interest of the child. A number of scholars, theorists, and researchers have posted the claim that gay parents subject children to unnecessary and increased risks. One notable suggestion is that children of gay parents are more likely to suffer confusion over their own gender and sexual identities, thus becoming more likely to claim a homosexual status later in their maturity. There are also claims that homosexual parents are more likely to molest their children; that these children are more likely to lose a parent to AIDS, substance abuse, or suicide; and that they are more likely to suffer from depression and other emotional disturbances. Arguments such as these abound, but there remains little or no scientific—or even consistent anecdotal evidence—in support of them.

Agencies

Regardless of one's position as to whether gay parents should be permitted to adopt, there are distinct differences in how each side is portrayed in the media and in various advocacy groups' Web sites. Agencies exist on both sides of the issue. The Evan B. Donaldson Adoption Institute has done extensive work in improving the knowledge of the public in this area. In 2003, the institute published a national survey titled "Adoption by Lesbians and Gays: A National Survey of Adoption Agency Policies, Practices, and Attitudes." Drawing on a number of surveys and studies, the report gives a plethora of statistics regarding the acceptance and placement of children into homosexual homes.

Among the findings are that: (1) lesbians and gays are adopting regularly, in notable and growing numbers, at both public and private agencies nationwide; (2) assuming that those responding are representative (and the results show that they are), 60 percent of U.S. adoption agencies accept applications from homosexuals; (3) about two in five of all agencies in the country have placed children with adoptive parents who they know to be gay or lesbian; (4) the most likely agencies to place children with homosexuals are public, secular private, Jewish- and Lutheran-affiliated agencies, and those focusing on special needs and international adoption. In addition to the specific findings, the study's results led to several major conclusions on the levels of policy and practice. These may be summarized as follows: (1) for lesbians and gay men, the opportunities for becoming adoptive mothers and fathers is significantly greater than is generally portrayed in the media or perceived by the public; (2) although a large and growing number of agencies work with or are willing to work with homosexual clients, they often are unsure about whether to or how to reach out to them; (3) because so many homosexuals are becoming adoptive parents, it is important for the sake of their children that agencies develop preplacement and postplacement services designed to support these parents.

In addition to the various types of programs that the adoption agencies utilize, ranging from special needs to international adoptions or a mixture of both, there is also a definite difference in the overall acceptance of adoption applications from homosexuals on the basis of the agency's religious affiliation. While Jewish-affiliated agencies were almost universally willing to work with LGBT clients, as were the majority of public agencies, private nonreligious, and Lutheran-affiliated agencies, only samples of Methodist and Catholic agencies were willing to consider applications from homosexuals. Twenty percent of all agencies responding to the study acknowledged that they had rejected an application from homosexual applicants on at least one occasion.

Not all of the agencies surveyed through the Donaldson Institute survey responded to the questions presented to them. Of those who willingly did respond, an estimated two-thirds of the agencies had policies in effect on adoption by gays and lesbians. Of those, an estimated 33.6 percent reported a nondenominational policy, 20 percent responded that placement decisions were guided by the children's country of origin, and another 20 percent said that religious beliefs were at the core of rejecting the homosexual applications. More than one-third of the responding agencies reported in follow-up phone calls that they did not work with homosexual prospective adoptive parents. On the other hand, an estimated two in five, or 39 percent, of all agencies had placed at least one child with a homosexual adoptive parent between 1999 and 2000. Owing to the fact that fewer than half of all agencies collect information on the sexual orientation of potential adoptive parents and do not actively track the statistics regarding the placement of children with adoptive parents who are homosexual, the Donaldson Institute was forced to estimate the number of such placements made. One adoption placement with a homosexual client per year was counted for statistical purposes. Based on these

assumptions, there were an estimated 1,206 placements with homosexual parents (or roughly 1.3 percent of the total placements). This number is much higher in reality.

One aspect not yet discussed is the input of the birth parents in the proceedings of the adoption of their child. The Donaldson Institute delved into this issue and released the following findings: (1) About one-quarter of respondents said that prospective birth parents have objected to the placing of their child with gays or lesbians or have specifically requested that their child not be placed with homosexuals. At that time, nearly 15 percent of all agencies said birth parents had requested or chosen lesbian or gay prospective adoptive parents for their child on at least one occasion. (2) Although most agencies worked with lesbians and gays, only 19 percent sought them to be adoptive parents, and the vast majority of these (86.6 percent) relied on word-of-mouth for recruitment. Outreach efforts were made most often at agencies already willing to work with homosexuals (41.7 percent of Jewish-affiliated, 29.9 percent of private, nonreligiously affiliated, and 20 percent of public). (3) Similarly, adoption agencies focused on children with special needs were the most likely to make outreach efforts (32.1 percent) to gays and lesbians, followed by international-focused agencies (19.7 percent). (4) Nearly half of the agencies (48 percent) indicated an interest in receiving training to work with lesbian and gay prospective parents. Most likely to be interested were agencies already working with them; public, nonreligiously affiliated, and Jewish- and Lutheran-affiliated agencies. Additionally, special needs programs and those with mixed needs were more likely to be interested in training than were those focusing on international and domestic infant adoptions.

There seems to be a growing interest in and flexibility toward the idea that homosexual prospective parents may be a viable option for the placement of children into homes to ultimately give them a more stable and nurturing environment than one would find in child welfare systems. However, religious affiliation of the agency remains an important and prominent issue. Over half of the agencies held no religious affiliation (55.38 percent), while the rest represented a variety of faiths, the largest of which was Catholic-affiliated at 14.8 percent, with various other denominations reporting 5 percent or less. With as many placements as are being made, it is clear that, somewhere along the line, the individuals who work in these agencies do actually want to place these children in good, stable, nurturing homes. However, a number of the agencies to which this survey was sent declined to participate. Their reasons for declining ranged from: (1) agency does not make adoption placements (36.7 percent); (2) agency does not work with homosexual clients (34.1 percent); (3) interested but agency director too busy (13.3 percent); (4) no reason given or not interested in the study (12.5 percent); (5) incomplete data from returned survey (3.0 percent). While there is still 0.4 percent missing from this data set, it does give some startling ideas about the various agencies' reactions to this survey.

At the time of this survey, only Florida, Mississippi, and Utah had statutory bans on or prohibitive barriers to homosexual adoption. One of the more shocking discoveries of the Donaldson Institute research is that 17 adoption directors from other states incorrectly

reported that lesbians and gays were barred from adopting children in their states; another 31 respondents were unsure of the states' law on adoption by homosexuals. This is slightly alarming, considering the work that has been done to include homosexuals in the adoption process, and yet it would seem that they are being excluded yet again but this time by ignorance. Despite being somewhat unaware of their states' legislation on homosexual adoption, there was a clear distribution of policy acceptance levels regarding homosexual adoption. According to the Donaldson Institute research, about 20 percent of all respondents said that their agencies, on one or more occasion, had rejected applications from gay or lesbian individuals or couples. The reasons for the rejections were as follows: (1) unrealistic expectations, (2) psychological problems, (3) questionable motives for adopting, (4) relationship problems, (5) placement with homosexuals violates agency policy, (6) applicant's lifestyle incompatible with adoption, (7) placement with homosexuals prohibited by country of origin, (8) sexual orientation of applicant incompatible with adoption, (9) lack of adequate social support, (10) financial problems, (11) placement with homosexuals violates community standards, and (12) medical problems with the applicant.

Conclusion

Generally, the presentation of gays and lesbians as adoptive parents has been biased by the group doing the presenting. Conservative media outlets and family-values groups such as the Family Research Council argue, largely on the basis of a preestablished moral line of thought, that the best home for a child is with two heterosexual married parents. These groups cite arguments against homosexuality in general, such as the so-called unnaturalness of same-sex partnerships or the potential for somehow damaging the children, as evidence for why homosexuals should be prevented from adopting. Increasingly, however, the opinions of the general public toward LGBT issues and individuals have become more accepting and positive. Moreover, because there are many more children awaiting adoption than there are homes into which they can readily be placed, gay and lesbian individuals and couples are increasingly seen as an untapped market. Anecdotal evidence suggests that, not only have gays and lesbians been more willing to adopt children with special needs, for example, but the outcomes are more positive than many critics predicted. As pressure mounts on states to solve some of their child welfare problems, particularly in the area of foster care, the prospect of opening adoptions to a field of underutilized but potential loving parents is a step in a beneficial direction.

See also **Adoption—International and Transracial; Domestic Partnerships; Foster Care**

Further Reading

American Psychological Association, "Sexual Orientation, Parents, and Children." 2004. http://www.apa.org/about/governance/council/policy/parenting.aspx

Black, James C., "Same-sex Parents and Their Children's Development." In *Same-Sex Marriage: The Legal and Psychological Evolution in America,* ed. Donald J. Cantor, Elizabeth Cantor, James C. Black, and Campbell D. Barrett. Middletown, CT: Wesleyan University Press, 2006.

Drescher, Jack, and Deborah Glazer, *Gay and Lesbian Parenting.* New York: Informa Healthcare, 2001.

Evan B. Donaldson Adoption Institute, "Adoption by Lesbians and Gays: A National Survey of Adoption Agency Policies, Practices, and Attitudes." 2003. http://www.adoptioninstitute.org

Family Research Council, http://www.frc.org

Hennon, Charles B., Bruno Hildenbrand, and Andrea Schedle, "Lesbian, Gay, Bisexual and Transgendered (LGBT) Families and Their Children." In *Family Influences on Childhood Behavior and Development,* ed. Thomas P. Gullota and Gary M. Blau. New York: Routledge, 2008.

Leung, Patrick, Stephen Erich, and Heather Kanenberg, "A Comparison of Family Functioning in Gay/Lesbian, Heterosexual, and Special Needs Adoption." *Children and Youth Services Review* 27 (2005): 1031–1044.

Mallon, Gerald P., *Lesbian and Gay Foster and Adoptive Parents: Recruiting, Assessing, and Supporting an Untapped Resource for Children and Youth.* Washington, DC: Child Welfare League of America, 2006.

Stacey, Judith, and Timothy J. Biblarz, "(How) Does the Sexual Orientation of Parents Matter?" *American Sociological Review* 66, no. 2 (2001): 159–183.

GAYS IN THE MILITARY

Carrie Anne Platt

From the time of the Revolutionary War to the era of "Don't Ask, Don't Tell," evidence of homosexuality has been grounds for exclusion or discharge from the U.S. military. The continued presence of lesbians and gays in the military has prompted heated debate over military necessity, personal rights, and the culture of the armed forces. The outcome of this controversy will likely affect other contemporary conflicts between lesbian and gay rights movements and traditional values.

Background

In June 2006, the Department of Defense found itself back in the middle of the controversy over gays and lesbians in the military. Researchers from the Center for the Study of Sexual Minorities in the Military had recently uncovered an official Pentagon document that classified homosexuality as a mental illness. Members of Congress and medical experts were quick to criticize the document, pointing out that the American Psychiatric Association had stopped classifying homosexuality as a mental disorder in 1973. This debate triggered a much larger dispute over how gay and lesbian service members should be classified by the military. Since the Department of Defense declared that "homosexuality is incompatible with military service" in 1982, gays and service members have become a topic of heated debate. Should sexual identity be a

standard for inclusion or exclusion from the U.S. military? Does sexual identity have any impact on military performance? Should gay and lesbian individuals be allowed to enlist and serve as long as they do not reveal their sexual orientation? Should they be able to serve openly? What consequences do these military regulations have for the broader social debate over lesbian and gay rights in the United States? Politicians, military leaders, legislators, judges, activists, and service members have all struggled with these questions.

The introduction of "Don't Ask, Don't Tell, Don't Pursue, Don't Harass" in 1993 addressed some of these concerns, but not all. Don't Ask, Don't Tell, as the policy came to be known, officially prohibits the military from asking recruits or current service members about their sexual orientation. Supporters of this policy argue that allowing gays and lesbians to serve openly would be bad for troop morale and damaging to unit cohesion, which could significantly diminish military performance and put other soldiers at risk. They also point out that the military operates under its own rules and regulations, making it immune to state and federal antidiscrimination laws. Opponents of this policy argue that the military's current bias against lesbians and gays is equivalent to its previous opposition to racial integration. They contend that the stigmatization and harassment of gay and lesbian service members are violations of basic rights, and they view the numerous military investigations into the sexual lives of service members as governmental interference into private life. Finally, they argue that any benefits generated by Don't Ask, Don't Tell are outweighed by the high costs of investigations and discharge proceedings.

The Military's Regulation of Sexuality

U.S. military regulation of sexuality goes back as far as the Revolutionary War, when Lieutenant Gotthold Frederick Enslin became the first American soldier to be dismissed for homosexual conduct. In March 1778, Enslin was court-martialed and dishonorably discharged from the Continental Army for his actions. Contemporary conversations about gays and lesbians in the military often reference this incident, but it is important to note that Lieutenant Enslin's removal from the army was not based on his sexual orientation. He was removed for engaging in sexual acts that were prohibited by military law. Until World War II, the military had no specific laws or policies regarding homosexuals. The Articles of War of 1920 classified sodomy as a punishable offense, but were applicable to both straight and gay service members (Burrelli 1994).

The lack of specific regulations did not prevent the U.S. military from policing sexual conduct. The Newport Sex Scandal of 1919–1921 was one of the military's first systematic attempts to purge gay service members from the ranks. Afraid that sailors stationed at the Navy base in Newport, Rhode Island, were in danger of being morally corrupted by the local gay community, the Navy set out to investigate. It recruited several enlisted sailors to entrap and then testify against suspected "perverts" in court (Brenkert 2003). During

the course of this investigation, a number of sailors were caught, court-martialed, and sent to prison. Prominent civilians, such as the Reverend Samuel Neal Kent, were also caught up in the dragnet, bringing the investigation—and Assistant Secretary of the Navy Franklin Delano Roosevelt—to national attention. Significantly, the scandal did not result from the Navy's findings but rather from the graphic accounts given by the young sailors who had volunteered for the investigation.

Lesbians and gays were not officially excluded from military service until World War II, when the introduction of standardized psychological screening shifted the military's focus from homosexual conduct to homosexual status. In 1942, the army revised its draft regulations to include criteria for differentiating between homosexual and "normal" draftees and added procedures for rejecting those who were not deemed normal by the screening protocol. Women who wished to enlist in the Women's Army Corps (WAC) were screened using the same criteria, although homosexuality did not become an official reason for disqualification until most of the WAC recruiting had been completed (Berube 1990). During this time, the high demand for service members meant that many of the regulations were loosened or ignored to allow gays and lesbians to enlist and serve. After the war was over, however, Congress enacted the Uniform Code of Military Justice, which standardized the military's restrictive approach to homosexuality across all branches of the armed services.

As the lesbian and gay rights movement emerged in the United States in the 1970s, military policy on homosexuality became the subject of both protest and legal challenge. Although this movement was unsuccessful in overturning the ban against gays and lesbians serving in the military, it did uncover enough inconsistencies in enforcement to prompt the military to review and revise its regulations in the early 1980s. The new policy sought to establish more uniform procedures for discharging lesbian and gay service members and to identify the extenuating circumstances under which those who had engaged in homosexual conduct might be retained. But the basic approach to lesbians and gays in the military remained—the first sentence of Department of Defense Directive 1332.14 reads: "Homosexuality is incompatible with military service."

Don't Ask, Don't Tell

The development and enactment of Don't Ask, Don't Tell in the early 1990s remains one of the most significant—and most contested—revisions of military policy on homosexuality. In 1993, shortly after taking office, President Bill Clinton announced that he planned to fulfill his campaign promise by lifting the ban on lesbians and gays in the military. He gave Secretary of Defense Les Aspin six months to draft a new policy that would end discrimination based on sexual orientation in the U.S. military. While waiting for this policy, President Clinton ordered the Department of Defense to stop asking military recruits about their sexual orientation and asked that those who were being discharged under the current policy be placed on standby.

KEY DATES

1778:	Lieutenant Gotthold Frederick Enslin becomes the first soldier dismissed from the U.S. military for homosexual conduct.
1919:	Navy orders first systematic investigation into allegations of homosexual conduct at Newport naval base. Numerous sailors are entrapped, court-martialed, and sent to prison.
1942:	United States Army begins to mandate screening of sexual orientation for all who enlist.
1950:	Uniform Code of Military Justice standardizes exclusion of lesbians and gays from all branches of the armed services.
1982:	Pentagon declares that "homosexuality is incompatible with military service."
1994:	Don't Ask, Don't Tell policy is enacted by the 1994 Defense Authorization Act.
2005 and 2007:	Representative Martin Meehan (D-MA) introduces and reintroduces the Military Readiness Enhancement Act, which seeks to overturn Don't Ask, Don't Tell (stalled).
2010:	President Barack Obama and congressional leaders announce that they will work to overturn Don't Ask, Don't Tell.

Clinton's proposals were strongly opposed by the joint chiefs of staff, high-ranking Pentagon officials, Senate Armed Services Committee (SASC) chair Sam Nunn (D-GA), and many conservative members of Congress. While Secretary of Defense Aspin commissioned studies on the current policy, both the SASC and the House Armed Services Committee held numerous hearings on the topic, during which Pentagon officials, military commanders, service members, and various experts testified on the potential impact of allowing lesbians and gays to serve openly in the U.S. military. The majority of the testimony offered was in opposition to lifting the ban (Herek 1996).

The final outcome of this controversy was "Don't Ask, Don't Tell, Don't Pursue, Don't Harass," a title that reflects the compromise reached in the new policy. Before Don't Ask, Don't Tell, military officials were permitted to ask potential recruits or current service members about their sexual orientation to prevent the enlistment or initiate the removal of gays and lesbians from the military. Don't Ask, Don't Tell prohibits military officials from asking direct questions about sexual orientation, but it also prevents gays and lesbians wishing to enlist and serve from saying or doing anything that would reveal their sexual orientation to others. They are also prohibited from engaging in any type of homosexual conduct, whether on duty or off duty. Also, if a commander believes that a service member has demonstrated a propensity for homosexual conduct, discharge proceedings can be initiated (Halley 1999). That lesbians and gays are now

allowed to serve as long as they don't serve openly has done little to dampen the debate over gays and lesbians in the armed forces.

Arguments for Upholding the Ban

Individuals and organizations opposed to lesbians and gays serving openly in the U.S. military offer various arguments in support of their position. Moral values certainly play a role in this debate, but the most common arguments involve issues of military necessity and key distinctions between military and civilian law. During the congressional hearings held in 1993, for instance, Pentagon officials testified that gays and lesbians must be banned from military service to maintain necessary levels of troop morale, unit cohesion, and discipline.

These arguments have less to do with the actual performance in the military and more to do with the responses of heterosexual service members to lesbians and gays in their own units (Halley 1999). During basic training and deployment, military personnel live in close proximity to one another. Service members also have little to no privacy when they dress or shower. Proponents of banning lesbians and gays from military service argue that allowing homosexuals to train and reside with heterosexuals would be like giving men service members the opportunity to observe women service members in various states of undress. Service members would feel awkward or uncomfortable and troop morale would decrease significantly.

Openly gay or lesbian service members are also viewed as a threat to unit cohesion. Unit cohesion is generally defined as the fostering of mutual trust and commitment to one's fellow soldiers and is necessary for both overcoming hardship and achieving military objectives. Proponents of the ban contend that, even if military officers are instructed to exhibit tolerance, the homophobic culture of the military will lead to tension and additional violence between gay and straight service members (Herek 1996). They also argue that the inclusion of lesbians and gays in sex-segregated units will increase the possibility of sexual harassment and precipitate breakdowns in the chain of command.

Finally, those who support the military's right to exclude or discharge service members based on sexual orientation point out that the military acts under its own laws, rules, and regulations; that service members are faced with a number of restrictions on their personal behavior that would not be acceptable for civilians; and that the U.S. military is immune to both federal and state laws prohibiting discrimination (Ray 1993). Important distinctions between civilian and military law help to account for the failure of numerous legal challenges to Don't Ask, Don't Tell.

Arguments for Allowing Lesbians and Gays to Serve Openly

Because they are arguing against the status quo, gay-rights advocates and others who favor overturning the current ban have to both refute the arguments of their opponents

and offer their own arguments for allowing lesbians and gays to serve openly in the military. They have uncovered studies commissioned by the Department of Defense and conducted independent research to dispute the claim that lesbian and gay service members are bad for troop morale or disruptive to unit cohesion. According to these advocates, recent surveys of enlisted military personnel show a marked increase in the number of service members who say they would be comfortable serving alongside lesbian and gay service members (Kuhr 2007).

From the perspective of advocates on this side of the debate, the military ban is symbolic of a more general refusal to grant full citizenship rights to lesbian, gay, and bisexual individuals. Like the right to vote or the right to enter into legal contracts, military service is a key marker of citizenship in the United States (Belkin and Bateman 2003). The controversy that surrounded the integration of African Americans into the U.S. armed forces in 1948 contained the same tension between military inclusion and social progress. Opponents of the ban point out that the military advanced similar arguments in this debate, stating that the integration of racial minorities would jeopardize military performance by dampening morale and damaging unit cohesion. Pursuing this analogy, they contend that the general success of racial integration in the U.S. military—and the number of foreign militaries who now allow lesbians and gay men to serve openly—suggests that overturning the ban would not adversely affect military performance.

Moving from principles to procedural issues, opponents of Don't Ask, Don't Tell argue that the policy costs too much and that the money and time it takes to investigate and discharge could be better spent elsewhere. According to a California blue ribbon commission report released in 2006, the policy cost U.S. taxpayers $364 million and resulted in the loss of almost 10,000 service members in its first decade (White 2006).

Conclusion

Nearly 30 years since the U.S. military said that "homosexuality is incompatible with military service," the country finds itself facing a combination of historical and cultural factors that are likely to have a significant impact on the debate over gays and lesbians in the military. In the face of an extended war in Afghanistan (and following an extended war in Iraq), the military has been forced to step up recruiting efforts and prolong tours of duty, but a troop shortage remains. It is clear that the discharge or exclusion of particular service members has come into conflict with military necessity.

At the same time, Don't Ask, Don't Tell has been denounced by dozens of former senior military officers and service members. John Shalikashvili, an army general who was head of the Joint Chiefs of Staff when the Pentagon adopted the policy, changed his mind and came out against it in early 2007. In 2005, Representative Martin Meehan (D-MA) introduced the Military Readiness Enhancement Act, which would allow lesbians and gays to serve openly in the military. The bill had 122 cosponsors but failed to pass the Republican-controlled House. It was reintroduced in 2007 and in

2009 (the latter time by Representative Patrick Murphy), gaining momentum this last time under backing from the White House under President Barack Obama. Senate leaders, too, announced that they would join the effort to overturn the ban, although an attempt to include a repeal measure in the 2011 defense appropriations bill failed owing to Republican opposition. Even in the event of passage in the near future, however, it would be up to top military leaders to implement any new policy according to military rules and regulations.

See also **Gay Parent Adoption; Social Justice (vol. 2)**

Further Reading

Belkin, Aaron, and Geoffrey Bateman, eds., *Don't Ask, Don't Tell: Debating the Gay Ban in the Military.* Boulder, CO: Lynne Rienner, 2003.

Berube, Allan, *Coming Out Under Fire: The History of Gay Men and Women in World War Two.* New York: Free Press, 1990.

Brenkert, Benjamin, "The Newport Sex Scandal, 1919–1921." *Gay and Lesbian Review Worldwide* 10, no. 2 (2003): 13–15.

Burrelli, David F., "An Overview of the Debate on Homosexuals in the U.S. Military." In *Gays and Lesbians in the Military: Issues, Concerns, and Contrasts,* ed. Wilbur J. Scott and Sandra Carson Stanley. New York: Walter de Gruyter, 1994.

Embser-Herbert, Melissa S., *The U.S. Military's "Don't Ask, Don't Tell" Policy: A Reference Handbook.* Westport, CT: Praeger Security International, 2007.

Estes, Steve, *Ask and Tell: Gay and Lesbian Veterans Speak Out.* Chapel Hill: University of North Carolina Press, 2007.

Frank, Nathaniel, *Unfriendly Fire: How the Gay Ban Undermines the Military and Weakens America.* New York: Thomas Dunne Books, 2009.

Halley, Janet E., *Don't: A Reader's Guide to the Military's Anti-Gay Policy.* Durham, NC: Duke University Press, 1999.

Herek, Gregory, "Why Tell If You're Not Asked? Self-Disclosure, Intergroup Contact, and Heterosexuals' Attitudes toward Lesbians and Gay Men." In *Out of Force: Sexual Orientation and the Military,* ed. Gregory Herek, Jared Jobe, and Ralph Carney. Chicago: University of Chicago Press, 1996.

Kuhr, Fred, "Gays in the Ranks: Who Cares?" *Advocate* (February 2007): 31–33.

Lord, James, *My Queer War.* New York: Farrar, Straus and Giroux, 2010.

Ray, Ronald D., *Gays: In or Out? The U.S. Military and Homosexuals: A Sourcebook.* Washington, DC: Brassey's, 1993.

Shilts, Randy, *Conduct Unbecoming: Lesbians and Gays in the U.S. Military, Vietnam to the Persian Gulf.* New York: St. Martin's Press, 1993.

Watson, Cynthia A., *U.S. Military Service: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

White, Josh, "Don't Ask Costs More Than Expected: Military's Gay Ban Seen in Budget Terms." *Washington Post* (February 14, 2006): sec. A.

GENDER SOCIALIZATION

Amber Ault

When parents-to-be find out the sex of their child, family and friends begin to buy gifts according to gender. Girls receive pink clothing, and boys receive blue clothing. If parents choose not to know the sex of the child, generally clothing will be bought in gender-neutral colors like yellow and green. Buying babies' clothing in specific gendered colors begins the socialization process, which will continue when toys are purchased—dolls for girls, trucks for boys. The teaching of gender continues in society and carries over into schools.

Schools socialize students in multiple ways, starting in kindergarten. Schools teach young students about the society they live in and their expectations of behavior. Citizenship is stressed in early education through activities such as saying the pledge of allegiance and singing the national anthem. How to conduct oneself appropriately and listen to authority are also highly valued in early schooling. Much time is spent on sitting in your assigned seat, lining up properly, and learning to listen attentively to teachers (Thorne 1993).

Beyond these practical socializing factors, many researchers argue that schools also socialize according to gender. Teachers treat boys and girls differently based on different expectations of behaviors and intellect. Teachers tend to accept when boys act out more and justify boys' disruptions in the classroom as uniquely male features. Girls, however, are often reprimanded for similar behaviors, because teachers expect girls to be better behaved and less disruptive in class.

Teachers expect girls to be more studious and excel more in school, particularly in subjects like reading and writing; boys are favored in math and science. Girls receive better grades than boys, and they also receive more favorable evaluations from teachers. Teachers seem to appreciate girls' cooperativeness and ease at communication and consistently rank girls higher on in-classroom behaviors. Girls may be better adapted to schools or may have different expectations than boys.

Young students are affected by gender socialization. In elementary school, boys and girls choose who is popular based on typical constructions of gender. Boys are thought to be popular when they are athletic and described as tough or cool. Popular girls are chosen because of their physical appearance, social skills, and academic success (Adler, Kless, and Adler 1992).

The Feminization of Teaching

A subtler way that schools reinforce gender is through the feminization of teaching. The feminization of teaching refers to the fact that the majority of teachers in the United States are women. Throughout elementary and high school, teachers tend to be women.

The field of education tends to replicate traditional gender hierarchies seen in other work environments, such as business. Although women dominate the status of teachers, a much higher percentage of education administrators, from principals and superintendents to positions in government, are men. Also, in colleges, more men are faculty members than women, particularly in math, science, and engineering fields.

The feminization of teaching has a long history in the United States. As early as 1880, 80 percent of elementary school teachers were women (Urban and Wagoner 2004). Schools originally hired women to teach because they could pay them less than men and were thought to be more nurturing and caring. It is debatable whether women make better teachers, but the high number of women teachers and the low level of women administrators shape how education is developed and taught, as well as how it is perceived by boys and girls.

What teachers and society expect of, teach, and demonstrate to children directly affects their opinions of themselves, their abilities, and what they are to hope for in school and in the future. Girls may think they are supposed to be good writers but not good at math, or boys may think they should not be elementary school teachers because teaching is a women's job. It is hard to disentangle whether girls and boys learn differently or whether they are taught to think that boys and girls are different from an early age.

Where Are the Gender Gaps in Schools?

Debates over how and why children learn and perceive themselves in different ways continue, and evidence in schools shows that gaps exist between boys and girls in terms of achievement in the classroom, standardized tests, and completing schooling. These gaps vary. Some favor girls and others favor boys, beginning in elementary school and continuing throughout college and professional school.

Elementary School

Elementary school is the first formal schooling children receive, and it is primarily used to teach basic reading and math skills. In elementary schools, differences between boys and girls emerge. Since the 1950s, girls have consistently received higher grades in all elementary school subjects, even math and science, which are traditionally thought of as male subjects (Alexander and Eckland 1974). Girls receive better ratings by teachers, better grades on report cards, and are less likely to repeat grades. Boys are more likely to repeat grades or drop out of school (American Association of University Women 1998). Girls seem to excel in the early years of education; however, this is not the case when it comes to standardized testing.

On standardized tests, such as proficiency tests, gaps between boys and girls appear. Girls do significantly better on tests of reading and writing; boys do better on tests of science and math (American Association of University Women 1998). These gaps sometimes puzzle researchers who wonder why girls' abilities in the classroom do

not translate to tests and why boys' high test achievement does not translate into the classroom.

High School

High school graduation rates suggest that girls are outpacing boys in schools and earning more degrees, but many obstacles stand in girls' ways for future success. Selection of classes becomes a cause of concern in high school. From early on, gaps in tests scores between boys and girls show that boys do better in math. The gap between math and science classes taken in high school is prevalent. Girls have increased their participation in math courses, but boys still take more advanced courses than girls. In science classes, boys are more likely to take all core classes, including biology, chemistry, and physics. Girls are less likely to take physics courses.

Conversely, girls take more English classes than boys, and boys are more likely to be enrolled in remedial English courses. Girls also take more foreign language, fine arts, and social science courses. Over time, girls have been increasingly taking more math and science courses, but they still lag behind boys.

Postsecondary

Historically, more men than women attended and completed college education, but this trend has recently changed. By 1980, men and women enrolled equally in college, and, currently, more than 56 percent of undergraduate students in the United States are women (Freeman 2004). Women enroll and complete bachelor's degree at higher rates than men; however, women's increased enrollment and attainment in college do not mean that equity has been reached. Many inequalities still exist for women in college.

Majors in college are highly sex segregated. Although women make up the majority of college students, certain fields seem regulated to men and women. Men earn a large majority of engineering, physical science, and computer science degrees. Women earn only 20 percent of engineering and 28 percent of computer science degrees. Women earn 41 percent of physical science degrees. The fields of business, mathematics, social sciences, and history have relativity equal numbers of men and women earning degrees. Women dominate the fields of education, completing 77 percent of degrees, and health professions, completing 84 percent of degrees.

Of interest, the fields that are clearly dominated by men, engineering and computer science, have the highest starting salaries of all college degrees; the fields dominated by women, education and health professions, have much lower starting salaries. The starting salaries of men and women after college cause concern for some scholars who believe that majors are a way to segregate men and women financially.

The types of degrees earned by men and women differ, as do the types of colleges and universities they attend. Even though women are more likely to be enrolled in college, the colleges that women enroll in are less likely to be prestigious, selective schools

(Jacobs 1999). This group largely includes prominent engineering schools. Women are more likely than men to enroll in two-year institutions such as community colleges.

Graduate and professional schools, like college majors, are sex segregated as well. Women are more likely to enroll in master's degree programs than men, but within these programs segregation similar to those seen in college occurs. The transition from master's to doctoral programs is less common for women, as they comprise only 45 percent of doctoral students. In professional fields, women's enrollment lags behind men. Roughly 39 percent of dentistry students and 43 percent of medical students are women. Law schools have almost reached parity in gender enrollment, with 47 percent of students being women.

SEXUAL HARASSMENT IN SCHOOLS

A pressing issue facing many students in U.S. schools is sexual harassment. Recognizing and preventing sexual harassment is difficult for educators and students, but the issue needs attention. Often, sexual harassment is considered a problem that afflicts workers only, yet sexual harassment is common at all levels of schooling. Sexual harassment in schools does not exclusively affect girls. A study conducted by the American Association of University Women found that 83 percent of girls and 79 percent of boys in grades 8 to 11 report being sexually harassed at school. Also, 62 percent of women and 61 percent of men in colleges report experiencing sexual harassment.

Peers overwhelmingly conduct sexual harassment in middle schools and high schools. Girls in schools are likely to be harassed for different reasons than boys. The most common types of sexual harassment that occur in schools include having rumors spread about a person, being forced into sexual acts, or enduring verbal attacks about looks or sexuality.

In college, peers mostly perpetrate sexual harassment. Concerns over sexual relationships between students and instructors or professors have prompted many schools to forbid such relationships. These relationships are troublesome because the professor is in a position of power over the student, often a young woman. Professors apparently can take on many roles in order to solicit relationships from young women, from threatening to decrease their grade to acting like a counselor or mentor to the student (Dziech and Weiner 1992).

Sexual harassment in schools is particularly harmful for women. The consequences of such experiences can cause girls emotional distress and is often associated with feelings of anger, fear, or embarrassment. Students who are sexually harassed may find it difficult to pay attention in class and their grades often suffer. In addition, they may skip class or drop out of school.

Although it is not likely to be a debate over whether sexual harassment is wrong, the issue is often overlooked or ignored in the education system. Affecting both boys and girls, sexual harassment should be discussed and addressed.

International Gender Gaps

Gender gaps in educational enrollment and completion of degrees exist in the United States, but what are the patterns of gender gaps in other countries? Similar gaps in standardized testing exist in other countries. In 2003, the Program for International Student Assessment tested 15-year-olds in math, science, and reading in 41 countries. Patterns similar to the United States are present in other countries. On average, boys performed better on tests of mathematics (Organisation for Economic Co-operation and Development [OECD] 2004). In 12 countries, however, the difference between boys' and girls' performance in math was not statistically significant. In all but one country, girls significantly outperformed boys on reading tests. In science tests, more variation occurs. In some countries, girls perform better than boys, but the opposite is true in other countries. On average, there is a minimal difference in science scores between boys and girls. Gender gaps seem to be consistent across countries, which is also true for educational enrollment.

In most industrialized countries, women have higher college enrollments than men. On average, they represent 53 percent of all students enrolled in tertiary education (OECD 2004). In some more conservative and traditional countries, such as Turkey and Germany, women still lag behind men in college enrollment, but in 13 industrialized nations, 55 percent of college students are women. In three countries, more than 60 percent of college students are women.

Gender gaps occur at all levels of schooling and across cultures, but the gaps do not always fall in one direction. Boys and girls have different advantages in schooling, creating a complex puzzle. Trends suggest that women have surpassed men, yet men still hold advantages in the work force. There is no clear answer explaining why girls excel in some areas and boys in others, and the controversies surrounding gender and education continue beyond how girls and boys learn and where they succeed.

Single-Sex Schools

The debates over how boys and girls learn, and why they succeed in different ways, lead some to argue for single-sex schooling in the United States. Those in favor of single-sex schools believe that, by schooling girls and boys separately, teachers can tailor their curricula according to gender. Opponents of single-sex schooling believe that there is no valid reason for segregating schools based on gender.

Single-sex schools have a complex history in the U.S. education system. Founders of public schools wanted to segregate all schools based on sex, but it was expensive and inconvenient to do so; so public schools were integrated. Although many colleges were, and remain, single-sex institutions, an increasing number of elementary and high schools are becoming single-sex, but not without controversy.

It is estimated that 237 schools have single-sex classrooms and 51 public schools are completely single-sex in the United States (National Association for Single Sex Public

WOMEN IN THE FIELD OF SCIENCE

In early 2005, Harvard University's then president, Lawrence Summers, suggested biological differences might be to blame for women's underrepresentation in the fields of science and engineering, pointing to statistical differences in standardized test scores. An immediate uproar over the remarks followed, launching a renewed interest in the controversy over women's performance in math and science. The debate has two contesting viewpoints. One view is that biological differences prevent women from being successful in science and engineering fields. The other view is that institutional forces and socialization prevent women from entering science and engineering fields.

The biological debate, discussed in this chapter, argues that men and women have different brains that have different specializations, which could benefit men in the participation in math, science, and engineering. The alternative argument, however, argues that the male-dominated fields such as math, science, and engineering discriminate against women, which limits their participation and success. In a report produced by the National Academies Press on the position of women in science and engineering (Committee on Maximizing the Potential of Women 2006), researchers found many obstacles that stand in women's way in these fields. First, they recognize that biological differences between the sexes may be present, but women are able to succeed in the sciences and have strong drives and motivations. Many women scientists have been extremely influential and successful in the sciences, such as Marie Curie, a physicist and chemist who was the first person to win two Nobel Prizes in different fields of science in 1903 and 1911. More recently, Linda Buck, a biologist, won the Nobel Prize in 2004 in the field of physiology.

Another obstacle for women in science is that at each educational transition, more and more women drop out of science fields. Women either opt out of or are weeded out of science programs as they progress through their education. Some suggest the presence of a science pipeline that disadvantages women. This pipeline refers to the trajectory that one must take to choose a science career. From elementary school to advanced degrees, women are not heavily placed on this pipeline. Also, within the fields of science and engineering, women face discrimination. Many science career and academic environments traditionally favor men, making women feel uncomfortable or unable to be successful. Finally, most people have implicit biases that suggest women are not good at math, science, or engineering. Often employers will hire a man over a woman for a scientific job, even if they have the same qualifications.

These barriers to women in the field of science support those who argue that society and the U.S. education system disadvantage women who would like to participate in the sciences. The debate over women in science continues as researchers continue to study both brain differences between the sexes and the socializing processes and discriminatory practices that impede women's participation in the sciences.

Education 2006). Many experts, parents, and students argue that students learn better when not distracted by the opposite sex, but others counter that claim by reasoning that

the real world is not segregated by sex and therefore single-sex schools do not prepare students for the actual work environment (McCollum 2004).

Those in favor of single-sex schools believe that boys and girls learn differently. Boys enjoy competition and working alone, whereas girls learn through cooperation. Boys and girls interact in the classroom differently, with boys shouting out answers and testing boundaries; girls are more likely to follow rules and thoroughly analyze questions before answering. By placing girls and boys in separate schools, they learn in environments tailored to their sex.

Researchers and educators believe that single-sex schools benefit girls more than they benefit boys, causing girls to develop higher self-esteem than they would in a coeducational school. Girls in single-sex schools are also found to be more likely to be leaders in life and to pursue advanced degrees. In addition, girls in single-sex schools are twice as likely to pursue careers in science compared to girls in coed schools.

Although single-sex schools seem to benefit girls, they have many opponents. Some question the benefits of single-sex schools, for they tend to benefit girls from wealthier backgrounds that could skew their positive effects. Mainly, opponents of single-sex schools believe that coeducational institutions can spark different kinds of learning for every student. The diversity of having both boys and girls is beneficial to the understanding of ideas and viewpoints. They will better prepare students to interact with a more diverse population. Some question whether single-sex schools violate the Fourteenth Amendment to the Constitution, stating that schools must be integrated.

Some believe that single-sex schools are being used as a type of quick fix to problems in the U.S. education system. For example, in the 1990s, California attempted to operate single-sex schools, which seemed to succeed at first. However, over time, male-only schools became dumping grounds for boys with behavioral, educational, and emotional problems, which drove the schools to close. Although this case is extreme, the decision to implement single-sex schools is one that must be thoughtfully considered. In general, the majority of the U.S. public (68 percent) does not believe in single-sex schooling.

Conclusion

Women's position in the education system is likely to keep evolving as women continue to succeed in schools. These changes will be closely monitored by researchers and the public as questions are asked about testing gaps and college completion differences. The controversy over how males and females learn will continue as debate over brain differences and social differences continue. A free and equal education is expected in the United States, but how do we feel when one gender seems to be benefiting more than the other? Is there a middle ground between helping girls, who have traditionally been discriminated against in schools, succeed versus not wanting to diminish the success of boys?

See also **Nature versus Nurture (vol. 4)**

Further Reading

Adler, Patricia A., Steven J. Kless, and Peter Adler, "Socialization to Gender Roles: Popularity among Elementary School Boys and Girls." *Sociology of Education* 65 (1992): 169–187.

Alexander, Karl L., and Bruce E. Eckland, "Sex Differences in the Educational Attainment Process." *American Sociological Review* 39 (1974): 668–682.

American Association of University Women, "Gender Gaps: Where Schools Still Fail Our Children." 1998. http://www.aauw.org/research/girls_education/gg.cfm

Committee on Maximizing the Potential of Women in Academic Science and Engineering, *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering.* Washington, DC: National Academies Press, 2006. http://www.nap.edu/catalog/11741.html#toc

Disch, Estelle, *Reconstructing Gender: A Multicultural Anthology.* Boston: McGraw-Hill Higher Education, 2009.

Dziech, B. W., and L. Weiner, *The Lecherous Professor: Sexual Harassment on Campus.* Urbana: University of Illinois Press, 1992.

Freeman, C. E., *Trends in the Educational Equity of Girls and Women: 2004.* Washington, DC: National Center for Education Statistics, 2004.

Gurian, Michael, *Boys and Girls Learn Differently! A Guide for Teachers and Parents.* Hoboken, NJ: Jossey-Bass, 2001.

Jacobs, Jerry A, "Gender and the Stratification of Colleges." *Journal of Higher Education* 70 (1999): 161–187.

McCollum, Sean, "Single-Sex Schools: Solution or Setback?" *Literary Cavalcade* 57, no. 2 (2004): 18–19.

Moir, Anne, and David Jessel, *Brain Sex: The Real Difference between Men and Women.* Quince Cottage, England: Delta Publishing, 1989.

National Association for Single Sex Public Education, http://www.singlesexschools.org

Organisation for Economic Co-operation and Development, "Learning for Tomorrow's World: First Results from PISA 2003." 2004. http://www.oecd.pisa.org

Thorne, Barrie, *Gender Play: Girls and Boys in School.* New Brunswick, NJ: Rutgers University Press, 1993);

Urban, Wayne, and L. Wagoner Jennings Jr., *American Education: A History* (New York: McGraw Hill, 2004.

U.S. Department of Education, "Title IX: 25 Years of Progress." June 1997. http://www.ed.gov/pubs/TitleIX/Index.html

GOVERNMENT ROLE IN SCHOOLING

Kevin R. Kosar

At the beginning of the 20th century, the role of government in schooling was to provide free public schools for children. So it was at the fin de siècle. What, then, changed? In

1900, schools were almost entirely the creatures of local governments. States played little role in their financing and operations, and the federal government was wholly absent. Come 2000, the role of local governments in schooling had ebbed while the role of state governments and the federal government had grown. Expressed as dollars, in 1900, local governments provided more than 80 percent of school funds; state governments contributed the rest. The federal government contributed none. By 2000, localities provided 43 percent of school funds, states 48 percent, and the federal government 9 percent.

These funding figures exhibit the growth of state influence over the schools. To cite just a few examples: State governments set high school graduation requirements, operate student learning testing and assessment programs, and dictate the certification requirements for teachers.

However, these numbers obscure arguably the most profound transformation in the government role in schooling, which is the dramatic rise in the power of the federal government to influence school operations. During the 20th century, the federal government went from having no role whatsoever to playing some part in virtually every aspect of schooling. Policies and actions of the federal government have affected schools' curricula and school policies toward minority (racial, language) and handicapped children, provided school lunches, funded cultural and arts programs and drug and alcohol abuse deterrence programs, and more. Furthermore, the growth of state education agencies and their development into highly professionalized entities was spurred, largely, by the federal government. Increasingly, the roles of state and local governments have been sculpted by actions of the federal government. As will be seen, the growth of the federal government's role in schooling has come through two means: federal court decisions and federal grants-in-aid policies.

The Colonial Era and After

Government's role as the provider of free education developed in fits and starts since the earliest settlement of North America. Though many children were educated by their parents or in private academies, some early localities and colonies did provide schools. In 1642, the Massachusetts Colonial Court decreed that, due to the "great neglect of many parents and masters, in training up their children in learning and labor, and other employments, which may be profitable to the commonwealth," we the court "do hereby order and decree, that in every town, the chosen men appointed to manage the prudential affairs…shall henceforth stand charged with the redress of this evil." The leaders of the towns could be fined and punished if they failed to remedy illiteracy among children, who were thought ignorant of "the principles of religion and the capital laws of this country."

The establishment of public schools was encouraged by the land management policies of the earliest federal governments of America. For example, the Northwest Ordinance of 1785 provided for the sale of Western lands by the federal government. As a condition

of sale, it required that "[t]here shall be reserved the lot N. 16, of every township, for the maintenance of public schools within the said township." During the 19th century, the growth of government-sponsored schools accelerated. Many local governments, often nudged by states and zealous educators, established simple schools that would provide rudimentary educational skills training, such as reading and writing. Progress, though, was uneven, particularly in rural and low-income communities, where limited tax bases and the agrarian way of life inhibited the development of modern schools.

Government Provision but Not Compulsion

Private schools have existed since European settlers arrived in North America. While all levels of government have recognized a community interest in the education of children, this has not meant that government has an absolute power to compel student attendance to government-funded or "public" schools. This limited power was stated forcefully by the Supreme Court in *Pierce v. Society of Sisters of the Holy Names of Jesus and Mary* (268 U.S. 510 [1925]), when it struck down an Oregon law that required parents to send their children to a public school. The Court declared,

> We think it entirely plain that the Act of 1922 unreasonably interferes with the liberty of parents and guardians to direct the upbringing and education of children…under their control. As often heretofore pointed out, rights guaranteed by the Constitution may not be abridged by legislation which has no reasonable relation to some purpose within the competency of the state. The fundamental theory of liberty upon which all governments in this Union repose excludes any general power of the state to standardize its children by forcing them to accept instruction from public teachers only. The child is not the mere creature of the state; those who nurture him and direct his destiny have the right, coupled with the high duty, to recognize and prepare him for additional obligations.

Throughout the 20th century, this antagonism between the professed interests of communities in schooling children and the rights of parents over their children has recurred. Frequently, these disputes have been litigated and judges have had to rule on nettlesome issues, such as the right of parents to homeschool their children.

How the Federal Government Assumed a Role in Schooling

In its enumeration of the powers of the federal government, the U.S. Constitution makes no mention of schooling or education. Moreover, the Tenth Amendment of the Constitution declares: "The powers not delegated to the United States [government] by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people," How, then, was the federal government able to assume a role in schooling? In great part, the vehicle has been grants-in-aid. Put succinctly, a grant-in-

aid is an offer of funding by the federal government to states or localities. In exchange for the funds, the recipient of the grant must expend it on the purposes stipulated by the grant and obey the grant's mandates (i.e., "conditions of aid"). Thus, grants-in-aid, have provided the primary means through which the federal government has leapt over the federalism divide, which purported to separate governing responsibilities between the federal and state governments, and assumed a role in schooling.

The Growth of the Federal Role in Schooling, 1917–1958

In a pattern that was to be repeated during the 20th century, the establishment of the first major federal education policy was spurred by a crisis. As the federal government began to draft men to fight in World War I, it found that 25 percent of them were illiterate. President Woodrow Wilson, a PhD and former university president, found this troubling and favored education legislation to remedy this problem. He believed that the modern industrial economy and military needed workers and soldiers who were literate and skilled in industrial trades. Thus, one month before the United States formally entered World War I, President Wilson signed the Smith-Hughes Vocational Act (P.L. 64–347) on February 23, 1917.

The Smith-Hughes Act appropriated money "to be paid to the respective states for the purpose of co-operating with the states in paying the salaries of teachers, supervisors, and directors of agricultural subjects, and teachers of trade, home economics, and industrial subjects, and in the preparation of teachers of agricultural, trade, industrial, and home economics subjects." The act established the surprisingly powerful Federal Board for Vocational Education, which was empowered to set the requisite qualifications for an individual to be hired as a vocational education teacher. The board also could withhold federal funds from schools that violated federal education standards of what constituted appropriate agricultural, home economic, vocational, and industrial educational curricula. The statute mandated that states set up state vocational education boards that would work with the federal board.

Over this breakthrough, however, the federal government's role changed little over the next three decades. During the Great Depression, agencies such as the Public Works Administration (PWA), the Civilian Conservation Corps, and the National Youth Administration provided emergency funding to cash-strapped schools. In 1934, emergency aid reached approximately $2 million to $3 million per month. By 1940, PWA had helped local and state authorities build 12,704 schools with 59,615 classrooms. This brief expansion of the federal role in schooling, though, contracted once the Great Depression passed.

Between 1946 and 1958, the federal role suddenly spurted. On June 4, 1946, the School Lunch Act (P.L. 79–396, 60 Stat. 231) was signed into law by President Harry S. Truman. The law declared it "to be the policy of Congress…to safeguard the health and well-being of the Nation's children and to encourage the consumption of nutritious

agricultural commodities and other foods, through grants-in-aid." The school lunch program required schools to provide low-cost or free lunches to children; in exchange, schools receive cash subsidies and food from the Department of Agriculture.

Impact aid (P.L. 81–815; 64 Stat. 967 and P.L. 81–874; 64 Stat. 1100) was enacted into law four years later (September 23, 1950, and September 30, 1950). This policy grew out of a 1940 program to fund infrastructure projects (sewers, recreational facilities, etc.) in areas where the federal government had a large presence (e.g., military installations, federal agencies, etc.). Mobilization for World War II created a huge growth in the size of the federal workforce. Military facilities occupied large swaths of land, which removed them from state and local tax rolls. (States and localities may not tax the federal government.) In time, the presence of these facilities and workers brought forth children who needed schooling. Impact aid was devised to reimburse these federally affected areas. Each year, communities provide the federal government with data on costs (e.g., educational costs) and receive reimbursement based upon a formula.

The launch of the *Sputnik* satellite by the Soviet Union on October 4, 1957, set off a media and political firestorm in the United States. While President Eisenhower downplayed the significance of the event, many inside and outside of Congress whipped up a frenzy. Senator Lyndon B. Johnson made especially fantastic claims. Control of space, he told the press, would make for control of the world, as the Soviets would have the power to control the weather and raise and lower the levels of the oceans. The schools were blamed for this situation. Prominent persons, such as former president Herbert Hoover and Senator Henry Jackson (D-WA), claimed that Soviet schools were producing far more brainpower than U.S. schools. In the name of national defense, many said, more federal education aid was needed. Less than a year later, the National Defense Education Act (NDEA, P.L. 85–864; 72 Stat. 1580) became law on September 2, 1958. Much of the NDEA benefited colleges, showering them with funds for research grants for technical training and advanced studies. Public high schools also benefited. Secondary schools were given funds to identify "able" students who should be encouraged to apply for federal scholarships for collegiate study in foreign languages, mathematics, and science.

Despite this growth in the federal role, many attempts to expand it further failed. Between 1935 and 1950, dozens of bills were introduced into Congress to provide general aid to public schools. Some of the bills would have raised teachers' salaries; others would have provided grants and low-interest loans to districts that needed to build bigger and more modern schools. In a hint of things to come, a number of bills were introduced that would have provided federal monies to create a floor in per-pupil spending. This latter proposal would have helped poor school districts, where property values were low, leaving schools grossly underfunded. All of the proposals to increase and equalize school funding stalled in Congress, blocked by members who saw little sense or propriety in an expansion of the federal role in schooling.

The Federal Government's Promotion of Equity in Schooling, 1954–1975

For much of its existence, the federal government did little to expand access to schooling for special needs and nonwhite children. On occasion, the U.S. Congress provided aid. For example, in 1864, the federal government helped found the Columbian Institution for the Deaf, Dumb, and Blind, which later became Gallaudet University. The federal government also aided in the development of schools for nonwhites. Subsequent to treaties signed with Native American tribes, the federal government funded and operated schools on Indian reservations. The federal government aided blacks by chartering Howard University in 1867 (Chap. CLXII; 39 Stat. 438). At the close of the Civil War, the federal government also forced confederate states to rewrite their constitutions to include provisions to require states to provide schooling for all children. (Previously, many black children and those in isolated rural areas lacked access to schooling.) Between 1954 and 1975, however, the federal government moved to the fore in expanding access to schooling.

The federal government's first major effort at ensuring equity in education came in the form of a Supreme Court decision. The case, *Oliver Brown et al. v. Board of Education of Topeka et al.* (347 U.S. 483), popularly known as *Brown v. Board of Education,* came on May 17, 1954. The Court noted that education was "perhaps the most important function of state and local governments." That said, it denied that states and localities could require children to attend racially segregated schools. Separate schooling was "inherently unequal," said the Court, and violated the Fourteenth Amendment's due process clause. States must, the Court declared, make schooling "available to all on equal terms." The upshot of the *Brown* case was the gradual demolition of states' racially segregated schooling. The *Brown* decision and those federal court decisions that followed it led to the federal policy of busing children to achieve racial desegregation. This policy was largely abandoned after 1980.

In the wake of America's "discovery of poverty" and rising violence in urban areas, the federal government greatly expanded its role in schooling and its funding of schooling through the enactment of the Elementary and Secondary Education Act of 1965 (ESEA, P.L. 89–10; 79 Stat. 27) on April 11, 1965. The act lifted the federal contribution to school funding to over 8 percent of total school funding. The ESEA provided funds for a number of school programs, the largest of which was Title I (also known as Chapter I). This program provided funds for schools to expend on compensatory education programs for nonwhite and poor children. The ESEA also provided funds to help state education agencies professionalize their operations. Over time, ESEA funds and mandates helped build state agencies into formidable educational administration agencies.

The federal government further expanded its role as promoter of equity in schooling with the enactment of the Bilingual Education Act of 1968 (P.L. 90–247; 81 Stat. 783, 816) on January 2, 1968, and the Education for All Handicapped Children Act of 1975 (P.L. 94–142; 89 Stat. 773) on November 29, 1975. Both of these acts established

programs to help public schools to better teach underserved children. The former act provided funds for instruction in English and foreign languages. The latter act forbade school systems from excluding children with mental or physical handicaps from schools and provided funds for programs to help school these children.

Finally, the federal government expanded its role further still when it forbade states from denying schooling to the children of illegal immigrants. When the state of Texas enacted a statute to deny children of illegal immigrants the right to attend school, the Supreme Court struck it down. In *Plyler v. Doe* (457 U.S. 202 [1982]), the Court stated that, although these children did not have a fundamental right to schooling, the law did deny the children the equal protection under the law guaranteed by the Fourteenth Amendment to the Constitution because it erected "unreasonable obstacles to advancement on the basis of individual merit."

The Proliferation and Diversification of the Federal Government's Role in Schooling, 1976–1999

Over the next quarter of a century, the federal role in schooling became more diversified. The Office of Education was replaced by the Department of Education on October 17, 1979 (P.L. 96–88; 93 Stat. 668). This upgrading of federal administration solidified the federal government role in a number of areas, including compensatory education, bilingual education, vocational education, and educational research. New grants-in-aid programs proliferated; by the end of the century, the federal government funded school programs in arts education, physical fitness, school technology, antidrug and -alcohol dependency classes, character education courses, and more.

During this period, criticism arose over the efficacy of federal programs, such as Title I of the ESEA. In response, the federal government began creating policies to increase student learning as measured by tests. Congress enacted Goals 2000 (P.L. 103–227; 108 Stat. 125) on March 31, 1994, and amended the ESEA's Title I grants-in-aid program via the Improving America's Schools Act of 1994 (P.L. 103–382; 108 Stat 3518) on October 20, 1994, and the No Child Left Behind (NCLB) Act of 2002 (P.L. 107–110; 115 Stat. 1425) on January 2, 2002. Under the new Title I of NCLB, the conditions of aid required states and localities to experiment with school choice or voucher programs. Funds were provided for the development of privately operated but open-to-all-children charter schools. The new Title I also required local school districts to permit students attending underperforming schools to choose the public school they attended. As a further condition of aid, these policies required states to develop accountability systems consisting of academic standards and tests that would be used to hold schools accountable for student learning. By 2009, school districts and government officials, faced with a flood of "failing schools" under NCLB, were considering adjusting the accountability strictures and moving ahead with a program (Race to the Top) aimed at rewarding schools for demonstrating efforts designed to improve performance.

Conclusion

States and localities provide the vast majority of funds for public schools. It is these two levels of government that have the greatest power to prescribe schools' curricula, set the compensation and standards for the licensure of teachers and administrators, and oversee day-to-day school operations. Nevertheless, as the federal government has assumed a larger and larger role, more and more of what states do occurs within a context set by the federal government. Through court decisions and grants-in-aid programs, the federal government, despite its modest contribution to school funding, has taken a broad and significant role in the public schools.

See also **Charter Schools; Desegregation; Early Childhood Education; No Child Left Behind (NCLB); Nutrition in Schools; School Choice**

Further Reading

Angus, David L., and Jeffrey E. Mirel, *The Failed Promise of the American High School, 1895–1995.* New York: Teachers College Press, 1999.

Fusarelli, Bonnie C., and Bruce S. Cooper, *The Rising State: How State Power Is Transforming Our Nation's Schools.* Albany: State University of New York Press, 2009.

Howell, William G., ed., *Besieged: School Boards and the Future of Education Politics.* Washington, DC: Brookings Institution Press, 2005.

Kosar, Kevin R., *Failing Grades: The Federal Politics of Education Standards.* Boulder, CO: Lynne Rienner, 2005.

Manna, Paul, *School's In: Federalism and the National Education Agenda.* Washington, DC: Georgetown University Press, 2006.

McCluskey, Neal P., *Feds in the Classroom: How Big Government Corrupts, Cripples, and Compromises American Education.* Lanham, MD: Rowman & Littlefield, 2007.

Vinovskis, Maris A., *From a Nation at Risk to No Child Left Behind: National Education Goals and the Creation of Federal Education Policy.* New York: Teachers College Press, 2009.

H

HOMELESSNESS

Robert Hartmann McNamara

All of us are touched by homelessness in one way or another. One of the main reasons this particular social problem remains in the minds of many Americans is its visibility. While always a part of the U.S. social fabric, in the last 30 years Americans have been forced to confront the visibility of this group of people in a substantial way. This visibility has resulted in the public's attempt to conceal or minimize its significance, thereby exacerbating the problem.

Definitional Matters: Who Are the Homeless?

Part of the difficulty in dealing with homelessness has to do with how it is defined. In the 1970s, Mitch Snyder argued that a million Americans were homeless. In the 1980s, he and Mary Ellen Hombs (1982), in their report *Homelessness in America: A Forced March to Nowhere,* estimated the population at between 2 million and 3 million. Interestingly, in the absence of official statistics, advocates for the homeless, policymakers, and a host of others began using this figure. In response, in 1984 the Reagan administration directed the U.S. Department of Housing and Urban Development (HUD) to study the homeless population and to produce its own estimate.

To accomplish this, HUD contacted the most knowledgeable people it could find in each large U.S. city and asked them to estimate the number of homeless people in their metropolitan area. The department then selected a number near the middle of the range

for each area. From this, HUD's best estimate of the homeless population was between 250,000 and 350,000 (Jencks 1995).

In response to the dramatic differences between Snyder and Hombs's and HUD's estimations, Snyder publicly admitted that he had no basis for their calculation, except that the number was large enough to warrant national attention on the problem. This playing of the "numbers game" has been, and continues to be, a pervasive problem in addressing the needs of the homeless. In his book, *Rude Awakenings,* White (1992) echoes this point and describes the tendency of service providers to inflate the size of the homeless population in an attempt to secure additional funding and to account for those individuals who are typically ignored in the definition of homelessness. He refers to this process as "lying for justice."

Part of the reason for the various estimates of the size of the population has to do with how the problem is defined and how it is measured. Defining the population is a difficult task at best. In one sense, however, it can be easily identified. For instance, according to the government definition, taken from the Stewart B. McKinney Act, a homeless person is "one who lacks a fixed permanent nighttime residence or whose nighttime residence is a temporary shelter, welfare hotel, or any public or private place not designed as sleeping accommodations for human beings" (PL 100–77). This definition, like others used by the government, excludes an important segment of the population. In the aforementioned HUD report, for example, a person is defined as homeless where, in addition to other living arrangements, "temporary vouchers are provided by public or private agencies" (p. 24). This definition excluded families in welfare hotels, presumably because their residence was long-term and no temporary vouchers were provided.

These different definitions are examples of the generally held usage of the term that correspond to three different political agendas. The first definition, used by Snyder and Hombs, is the most common one, but it does encounter some controversy when advocates employ it to contend that large numbers of homeless people remain on the street. The second definition, used in the HUD study, refers to the population served and is a favorite of public officials who would like to minimize the size of the population and demonstrate the adequacy of programs targeting the homeless. A third definition includes the population at risk—those who, though not currently on the street, are doubled up or might otherwise lose their housing. Typically found in estimates and projections of housing needs, it produces the largest number of homeless.

Essentially, there are only two options to choose from to obtain a census of the population. The first is what is sometimes known as a *point in time* study. This is a one-time survey of shelters, institutions, and the areas on the street where the homeless are likely to be found. This method is considered the most accurate of the two, but it is also the most expensive. It is also likely to identify the most visible portion of the population. The second method is to ask individuals whether they have ever spent any time in which

they were homeless. This tends to depart from the government's definition as well as studies like HUD's, which ask about homelessness on any given night rather than at any other time.

While the HUD estimate and those made by advocates are extreme, more recently, the National Survey of Homeless Assistance Providers and Clients, conducted by the Urban Institute, found that between 446,000 and 842,000 people in the United States are homeless. This estimate is based on counts of homeless people from a sample of homeless service providers from across the country, To create an annual estimate of homelessness, Urban Institute researchers estimated that between 2.3 million and 3.5 million people per year experience homelessness (Cunningham and Henry 2008).

Profile of the Homeless

While the debate continues about the size of the homeless population as well as the most effective method of collecting data, there is much greater consensus on the characteristics of the homeless. And while no study has been accepted as the seminal work on the subject, especially since regional differences have been discovered, there are some fairly consistent themes that run through this population.

According to a 2010 report by the National Coalition for the Homeless, in general, the research suggests that the homeless population is younger than its historical counterparts and consists of about 50 percent minorities. According to the National Alliance to End Homelessness (2010), nearly 600,000 families and 1.3 million children experience homelessness in the United States. The research suggests that families make up anywhere between 30 percent and 55 percent of the homeless population, depending on whether it is in rural or urban areas (National Coalition for the Homeless 2009).

A report by the National Law Center on Homelessness and Poverty shows that children under the age of 18 represent about 39 percent of the homeless population, many of whom are under the age of 5. Additionally, about 25 percent of the homeless were between the ages of 25 and 34. The elderly, people aged 55 to 64, make up about 6 percent of the homeless population (Foscarinis 2008).

Most studies show that single homeless adults are more likely to be men than women, but only slightly. Single men make up slightly more than 51 percent of the total homeless population, while single women comprised about 17 percent. Part of the explanation for this trend has to do with changes in the economy. As the United States transitioned from an industrial to a service economy, many manufacturing jobs were moved to other countries. This meant that many members of the urban poor, who had few technical skills to begin with, were excluded from those job opportunities and eventually forced into shelters and onto the streets (Blau 1993).

About half (49 percent) of the homeless population are people of color. This makes sense if one recognizes that minorities have long represented a disproportionate percentage of people in poverty. Whites represent 35 percent, Hispanics about

13 percent, and Native Americans about 2 percent of the homeless population. The ethnic distribution of the homeless is affected by geography—homeless people in urban areas are much more likely to be African American, while the rural homeless consist primarily of whites, Native Americans, and Hispanics (National Coalition for the Homeless 2009).

Other variables, such as substance abuse and mental illness—two of the most common characteristics of the stereotypical homeless person—are also factors to consider in profiling this population. However, it must be noted that there are many problems with defining mental illness as well as which types of disorders are included in any given study. Additionally, the subjective nature of assessing mental illness must also be taken into account. A clinical diagnosis is not always the definitive way of identifying a disorder. Additionally, few studies have compared the incidence of mental illness among the general population. Thus, it is difficult to determine how extensive severe mental disorders are among the homeless compared to disorders for the rest of the population. According to the National Coalition for the Homeless (2009), approximately 16 percent of the single adult homeless population suffers from some form of severe and persistent mental illness.

Substance abuse is also a common feature of homelessness. In the 1980s, research on addictions found that the homeless had consistently high rates of addictive disorders. More recently, these rates have been called into question. According to recent accounts, the number is closer to 30–33 percent (National Coalition for the Homeless 2009).

Another common misperception of the homeless is that they are primarily veterans of military service (National Coalition for the Homeless 2009). Several studies indicate that veterans make up 33–40 percent of the homeless male population. This compares with about 34 percent of the general adult male population. However, Burton and James (2008) found that about 11 percent of the homeless population were veterans. The reasons for this disparity are still under scrutiny, but many questions remain about the impact of military service on homelessness.

Also in contrast to conventional wisdom, a significant portion of the homeless are employed. Most of the research shows that almost a quarter of the homeless population were engaged in some type of work, typically casual labor (National Coalition for the Homeless 2009).

The length of time one stays in a shelter can be misinterpreted to imply that homelessness is a short-term problem. For example, the data reveal that the range of time a person remains homeless is between 34 days and 11 months. The National Alliance to End Homelessness (2010) and the Urban Institute estimate that the average homeless experience lasted 7 months. While chronic homelessness represents a different set of challenges for policymakers and service providers than its temporary counterpart, the fact that so many people repeat their short-term episodes of homelessness warrants a long-term set of strategies.

Causes of Homelessness

In addition to identifying the characteristics of the homeless, much of the research has focused on the causes that resulted in the increase in the size and composition of the homeless population. Most of the research on homelessness identifies three main causal factors: a shift in the economy; the lack of affordable housing, such as the destruction of single-room occupancy (SRO) units through urban renewal efforts; and the deinstitutionalization of the mentally ill. There remains serious debate over which of these is most significant, but there is substantial evidence to suggest they all play a part in the problem.

First, Blau (1993) attempts to explain the causes of homelessness from an economic perspective in his book *The Visible Poor*. This analysis incorporates not only a relevant discussion of the shift to a service-oriented economy, which resulted in the decline of well-paying job opportunities for the poor, but also how this current trend has been occurring since the post–World War II era. Blau argues that, while moving production operations overseas helps the corporation's bottom line, it has a devastating impact on its workers. For many employees whose plants closed, it is a short step to living in a shelter or living on the streets. Exacerbating all of this was the social deregulation that took place in the 1980s during the Reagan administration, whereby many of the programs designed to help the poor—such as food stamps, Aid to Families with Dependent Children, the Comprehensive Employment and Training Act, and others—were eliminated, scaled back, or witnessed drastic changes in criteria. This affected the eligibility of hundreds of thousands of people.

Second, the lack of affordable housing influences homelessness. In his analysis of the problem in Chicago, Rossi (1989) concluded that the decline in SROs and other forms of inexpensive housing forced many poor Chicago residents to either spend a very large proportion of their income on housing, which perpetuates their impoverished status, or to resort to the shelters or the street. He goes on to argue that a major factor in explaining the decline of SRO housing units is the shrinkage of the casual labor market in many urban economies in the 1960s and 1970s.

Another significant event used to explain the rise of homelessness has been the deinstitutionalization of the mentally ill. Recall that about a third of today's homeless suffer from some type of diagnosed mental disorder. Deinstitutionalization of the mentally ill is a causal factor in the growth of the homeless population. Jencks argues that deinstitutionalization was not a single policy but a series of them, all of which tried to reduce the number of hospitalized patients and accomplished this by moving patients to different places. He argues that the policies implemented before 1975 worked; the ones after that did not (Jencks 1995).

Prior to 1975, a number of programs and events took place that led to the release of many formerly institutionalized patients. These changes imply a recognition on the part of the psychiatric community that hospitalization was a counterproductive measure.

This resulted in the release of any patient who could be cared for as an outpatient, and, if a patient was hospitalized, he or she was to be released as soon as possible. The second event was the development of drugs to treat schizophrenia, specifically thorazine. These drugs made it much easier to treat patients outside the institution (Jencks 1995).

The third event was the creation of several federally funded programs that gave patients the economic resources to survive as outpatients, specifically Medicaid and Supplemental Security Income (SSI). Medicaid paid for outpatient treatment but not hospitalization, and SSI was available for those who were incapable of holding a job because of a physical or mental disability. These programs led to the release of many people suffering from mental disorders but provided them with a means by which to continue their treatment and to maintain their economic viability without being hospitalized.

After 1975, many politicians pressured state hospitals to reduce their budgets due to an overall concern about rising taxes. As a result, most hospitals closed their psychiatric wards and discharged the remaining chronic patients. States compounded the problem by cutting their benefits to the mentally ill. The result of these decisions meant that more people suffering from serious emotional disorders were released into communities around the country (Jencks 1995).

In recent times, despite the considerable effort that has gone into eliminating homelessness as well as trying to address its chronic nature and intractable structural obstacles, the public's perception of the problem has changed. What was once sympathy for the plight of the homeless has, over time, transformed itself into a form of apathy. Evidence of this frustration comes in the form of city ordinances and efforts to make many of the behaviors of homeless people illegal. This general trend is often referred to as the *criminalization of homelessness.* Examples include aggressive enforcement of panhandling, loitering, and public intoxication statutes. Other legislation, as noted in Orlando, Florida, and Las Vegas, Nevada, in 2007, focused on prohibiting volunteers from feeding the homeless (Komp 2007). In all, the criminalization effort attempts to remove the homeless from the streets of U.S. cities by incarcerating or forcing the homeless to another community. However, such efforts are limited in their effectiveness and only serve as a stop-gap measure in dealing with the problem.

The Future of Homelessness in America

So what does the future hold for the homeless in America? In order to end homelessness, the severe lack of affordable housing to low-income people must be addressed and remedied. According to a 2007 poll, 90 percent of New York City residents believe that everyone has a basic right to shelter; 72 percent believe that, as long as homelessness persists, the United States is not living up to its values; 85 percent approve of their tax dollars being spent on housing for homeless people; and 62 percent believe the city should increase spending on programs for homeless people (Arumi, Yarrow, Ott, and Rochkind 2009). A 2007 poll found that 9 in 10 Americans believe that

providing affordable housing in their communities is important, and fewer than half believe that current national housing policy is on the right track (National Association of Realtors 2007).

The past three decades have witnessed a striking shift in rhetoric and stated policy. While the Reagan administration publicly adopted the view that homelessness is a lifestyle choice and not a national policy concern, the Bush administration not only stated that homelessness *is* an important issue, it also made a commitment to ending chronic homelessness in the next decade (Cunningham, McDonald, and Suchar, 2008). Some policy shifts have accompanied the changed rhetoric, most notably during the 1990s, as funding for homelessness, housing, and other social programs increased. In addition, homelessness programs shifted away from crisis response toward longer-term aid. Currently, however, despite their stated commitment, recent economic changes have slowed efforts to address the housing and homelessness problem. While the problems experienced by the homeless remain or intensify, the ability of federal, state, and local governments to assist this segment of the population are hindered not only by the current economic recession but by changing public perception as well.

See also **Mental Health; Poverty and Public Assistance; Consumer Credit and Household Debt (vol. 1); Poverty and Race (vol. 1); Unemployment (vol. 1)**

Further Reading

Arumi, A. M., A. L. Yarrow, A. Ott, and J. Rochkind, *Compassion, Concern and Conflicted Feelings: New Yorkers on Homelessness and Housing.* Washington DC: Public Agenda, 2009. http://publicagenda.org/reports/compassion-concern-and-conflicted-feelings

Blau, J., *The Visible Poor.* New York: Oxford University Press, 1993.

Burton, C., and K. James,. "Homelessness and Veterans: Untangling the Connection." In *Homelessness in America,* Vol. 1, ed. R. H. McNamara. Westport, CT: Greenwood Press, 2008.

Cunningham, M. K., *A National Commitment to Ending Homelessness among Veterans.* Washington, DC: Urban Institute, 2009. http://www.urban.org/url.cfm/?ID=901263

Cunningham, M. K., and M. Henry, "Measuring Progress and Tracking Trends in Homelessness." In *Homelessness in America,* Vol. 1, ed. R. H. McNamara. Westport, CT: Greenwood Press, 2008.

Cunningham, M. K., S. McDonald, and N. Suchar, "Promising Strategies To End Homelessness." In *Homelessness in America,* Vol. 3, ed. R. H. McNamara. Westport, CT: Greenwood Press, 2008.

Foscarinis, M. "The Evolution of Homelessness: Trends and Future Directions." In *Homelessness in America,* Vol. 3, ed. R. H. McNamara. Westport, CT: Greenwood Press, 2008.

Hombs, Mary Ellen and Mitch Snyder, *Homelessness in America: A Forced March to Nowhere.* Washington, DC: Community for Creative Non-Violence, 1982.

Jencks, C., *The Homeless.* Cambridge, MA: Harvard University Press, 1995.

Komp, C., "Bans on Feeding Homeless Spread, Face Challenges." *New Standard* (2007). http://newstandardnews.net/content/index.cfm/items/3503

National Alliance to End Homelessness, *Fact Sheet: Family Homelessness.* 2010. http://www.endhomelessness.org/content/article/detail/1525

National Association of Realtors, *Field Guide to Affordable Housing.* 2007. http://www.realtor.org/library/library/fg327

National Coalition for the Homeless, "Factsheets." 2009. http://www.national homeless.org/factsheets/index.html

Rossi, P., *Down and Out in America.* Chicago: University of Chicago Press, 1989.

Stewart B. McKinney Act (PL 100–77).

White, R. W., *Rude Awakenings: What the Homeless Crisis Tells Us.* San Francisco: Ice Press, 1992.

I

IMMIGRATION REFORM

Philip Martin

Public opinion polls find widespread dissatisfaction with the "broken" U.S. immigration system, which admits an average of 1 million immigrants a year and several hundred thousand unauthorized foreigners. Congress has debated comprehensive immigration reform for a decade but has been unable to enact the three-pronged package endorsed by President Barack Obama: tougher enforcement against unauthorized migration, legalization for most unauthorized foreigners, and new and expanded guest worker programs.

The Context for Immigration Reform

The United States had 38 million foreign-born residents in 2008, making up 12.5 percent of the 304 million U.S. residents (Pew Research Center 2010). Between 2000 and 2008, the number of foreign-born U.S. residents rose by 7 million, from 31 million to 38 million, while the number of U.S.-born residents rose by 16 million, from 250 million to 266 million. Immigration directly contributed one-third to U.S. population growth and, with the U.S.-born children and grandchildren of immigrants, over half of U.S. population growth.

The United States has the most foreign-born residents of any country, three times more than number-two Russia, and more unauthorized residents than any other country. About 10 percent of the residents of industrial countries were born outside the country.

The United States, with 13 percent foreign-born residents, has a higher share of immigrants among residents than most European countries but a lower share of foreign-born residents than Australia and Canada.

Immigration affects the size, distribution, and composition of the U.S. population. As U.S. fertility fell from a peak of 3.7 children per woman in the late 1950s to the replacement level of 2.1 today, the contribution of immigration to U.S. population growth increased. Between 1990 and 2010, the number of foreign-born U.S. residents almost doubled from 20 million to 40 million, while the U.S. population rose from almost 250 million to 310 million.

Mexico is the leading country of origin of foreign-born U.S. residents—30 percent, or 11.5 million, were born in Mexico, followed by 9 million born in Asia and 6 million born in Central America and the Caribbean. After Mexico, the leading countries of origins were the Philippines, 1.7 million; India, 1.6 million; China, 1.3 million; Vietnam, 1.2 million; El Salvador, 1.1 million; and Korea and Cuba, a million each. These eight countries, each accounting for over a million foreign-born U.S. residents, were 53 percent of the total.

In recent decades, immigrants have been mostly Asian and Hispanic; their arrival changed the composition of the U.S. population. In 1970, about 83 percent of U.S. residents were non-Hispanic whites and 6 percent were Hispanic or Asian. Today, two-thirds of U.S. residents are non-Hispanic white and 20 percent are Hispanic or Asian. If current trends continue, by 2050, the non-Hispanic white share of U.S. residents will decline to 52 percent, while the share of Hispanics and Asians will rise to a third.

The effects of immigration on the U.S. economy and society are hotly debated. Economic theory predicts that adding foreign workers to the labor force should increase economic output and lower wages, or lower the rate of increase in wages. This theory was supported by a National Research Council (NRC) study that estimated immigration raised U.S. gross domestic product (GDP, the value of all goods and services produced), one-tenth of 1 percent in 1996, increasing the then $8 trillion GDP by up to $8 billion (Smith and Edmonston 1997). Average U.S. wages, according to the NRC, were depressed 3 percent because of immigration.

However, comparisons of cities with more and fewer immigrants have not yielded evidence of wage depression linked to immigration. In 1980, over 125,000 Cubans left for the United States via the port of Mariel. Many settled in Miami, increasing Miami's labor force by 8 percent, but the unemployment rate of African Americans in Miami in 1981 was lower than in cities such as Atlanta that did not receive Cuban immigrants. One reason may be that U.S.-born workers who competed with Marielitos moved away from Miami or did not move to Miami.

Immigrants do more than work—they also pay taxes and consume tax-supported services. Almost half of the 12 million U.S. workers without a high school diploma are

immigrants, and most have low earnings. Most taxes paid by low earners flow to the federal government as Social Security and Medicare taxes, but the tax-supported services most used by immigrants are education and other services provided by state and local governments. For this reason, some state and local governments call immigration an unfunded federal mandate and have sued the federal government for the cost of providing services to immigrants.

Many immigrants become naturalized U.S. citizens and vote; some hold political office, including California Governor Arnold Schwarzenegger. The U.S. government encourages legal immigrants who are at least 18, have been in the United States at least five years, and who pass a test of English and civics, to become naturalized citizens. There are often celebratory naturalization ceremonies on July 4 and other national holidays.

Naturalization rates vary by country of origin. Immigrants from countries to which they do not expect to return are far more likely to naturalize than immigrants from countries to which they expect to return. Thus, naturalization rates are far higher for Cubans and Vietnamese than for Canadians and Mexicans.

More Mexicans and Latin Americans are naturalizing, in part because their governments have changed their policies from discouraging to encouraging their citizens abroad to become dual nationals. However, rising numbers of naturalized immigrants have not yet translated into decisive political clout. There are more Latinos than African Americans in the United States, but, during the 2008 elections, African Americans cast almost twice as many votes as Latinos, reflecting the fact that many Latinos are not U.S. citizens and others did not register and vote. Latinos are sometimes called the sleeping giant in the U.S. electorate that could tilt the political balance toward Democrats as their share of the vote increases—two-thirds of the Latinos who voted in 2008 elections supported President Obama.

Immigration Reform: 1986–2008

The United States has had three major immigration policies throughout its history: no limits for the first 100 years, qualitative restrictions such as "no Chinese" between the 1880s and 1920s, and both qualitative and quantitative restrictions since the 1920s. During the half-century of low immigration, between the 1920s and the 1970s, U.S. immigration law changed only about once a generation.

Beginning in the 1980s, Congress changed immigration laws more frequently. The Immigration Reform and Control Act (IRCA) of 1986 embodied a compromise to reduce illegal migration. For the first time, the federal government received authority to fine U.S. employers who knowingly hired unauthorized workers while legalizing most of the estimated 3 to 5 million unauthorized foreigners in the United States. IRCA's sanctions failed to reduce illegal migration, largely because unauthorized workers used false documents to get jobs, and legalization was tarnished by widespread fraud that allowed

over a million rural Mexican men to become U.S. immigrants because they asserted they had done qualifying U.S. farm work.

The September 11, 2001, terrorist attacks were committed by foreigners who had entered the U.S. legally; the attacks highlighted the failure of the U.S. government to track the activities of foreigners in the United States. In response to the attacks, the U.S. government established a tracking system for foreign students, gained the power to detain foreigners deemed to be threats to U.S. national security, and consolidated most immigration-related agencies in the new Department of Homeland Security.

Legal and illegal immigration continued after the September 11 attacks; U.S. leaders emphasized the distinction between desired immigrants and undesired terrorists. As the number of unauthorized foreigners rose from 8 million in 2000 to 12 million in 2007, Congress debated measures to deal with illegal migration, in part because employers complained of labor shortages as the unemployment rate dipped below 5 percent.

The congressional debate mirrored divisions among Americans. The House in 2005 approved an enforcement-only bill that would have added more fences and agents on the Mexico–U.S. border and made "illegal presence" in the United States a felony, which would likely complicate legalization. One result was demonstrations in cities throughout the nation that culminated in a "day without immigrants" on May 1, 2006.

The Senate took a different approach, approving the Comprehensive Immigration Reform Act (CIRA) in 2006 on a 62–36 vote in May 2006 to beef up border and interior enforcement and to provide an "earned path" to legalization—unauthorized foreigners would have to pay fees and pass an English test to become legal immigrants. CIRA 2006 would have created new guest worker programs to satisfy employers complaining of labor shortages.

There was strong resistance to an amnesty for unauthorized foreigners, prompting the Senate to consider a tougher bill in 2007. However, despite strong support from President George W. Bush and a bipartisan group of senators, the Comprehensive Immigration Reform Act of 2007 (S1348) stalled when proponents were unable to obtain the 60 votes needed to prevent a filibuster.

CIRA 2007's so-called grand bargain provided a path to legal status for the unauthorized in the United States, favored by most Democrats, and shifted future legal immigration toward foreigners with skills under a point system, favored by most Republicans ("Senate: Immigration Reform Stalls" 2007).

CIRA 2007 differed from CIRA 2006 in several important ways. First, CIRA 2007 included triggers, meaning that more border patrol agents would have to be hired, more border fencing built, and the mandatory new employee verification system working before legalization and new guest worker programs could begin. Second, CIRA 2007 required "touchbacks" for legalizing foreigners, meaning that unauthorized foreigners would have had to leave the United States, apply for immigrant visas abroad, and return

to the United States legally. Third, CIRA 2007 would have changed the legal immigration system by admitting a third of U.S. immigrants on the basis of points earned for U.S. employment experience, English, education and other factors expected to increase the likelihood that a foreigner would be economically successful in the United States ("Senate: Immigration Reform Stalls" 2007).

CIRA 2007 failed because advocates toward the extremes of the no borders–no immigrants spectrum were more comfortable with the status quo than with a complex compromise whose impacts were unclear. The two key obstacles to CIRA 2007 were opposition to amnesty and fears that admitting guest workers would depress the wages of U.S. workers. Some analysts noted that the status quo persists, because it provides workers for many low-wage industries with relatively little risk of enforcement for employers or workers.

Both major presidential candidates in 2008 supported the comprehensive immigration reforms considered by the Senate in 2006 and 2007, but there was a difference in emphasis. John McCain called for border security before legalization, while Barack Obama stressed the need to enforce labor and immigration laws in the workplace to discourage employers from hiring unauthorized workers ("Senate: Immigration Reform Stalls" 2007).

The first priority of the Obama administration in 2009 was stimulating the economy, culminating in the $787 billion American Recovery and Reinvestment Act of 2009. Arizona Governor Janet Napolitano became Department of Homeland Security (DHS) secretary, and promised a different approach to enforcing U.S. immigration laws, including ending raids of factories and other workplaces to apprehend unauthorized foreigners. DHS also ended efforts begun by the Bush administration to have the Social Security Administration (SSA) include immigration-enforcement notices in the no-match letters the SSA sends to U.S. employers with 10 or more employees who pay Social Security taxes when employer-supplied information does not match SSA records.

Instead of surrounding factories and checking the IDs of workers, DHS's Immigration and Customs Enforcement (ICE) agency that enforces immigration laws inside the United States began to audit the I-9 forms completed by newly hired workers and their employers. ICE said that I-9 audits "illustrate ICE's increased focus on holding employers accountable for their hiring practices and efforts to ensure a legal workforce." ICE agents scrutinize the forms and inform employers of which workers appear to be unauthorized. Employers in turn inform these employees, asking them to clear up discrepancies in their records or face termination—most employees quit.

One of the employers whose I-9 forms were audited, American Apparel in Los Angeles, announced in 2009 that 1,800 workers, a quarter of its employees, would be fired because they could not prove they were legally authorized to work in the United States. American Apparel makes T-shirts and miniskirts in a pink seven-story sewing

plant in the center of Los Angeles, and CEO Dov Charney has campaigned to "legalize L.A." by urging Congress to approve a comprehensive immigration reform.

Immigration Reform: 2010

Arizona in April 2010 enacted a law making it a state crime for unauthorized foreigners to be present, prompting Senate Democrats to announce a framework for a comprehensive immigration reform bill before demonstrations in support of legalization around the nation on May 1, 2010. The Democrats' framework was more enforcement oriented than the bill approved by the Senate in 2006, but Republicans predicted it would be difficult to enact immigration reform in 2010. President Obama seemed to agree when he said: "I want to begin work this year" on immigration reform.

Arizona, where almost half of the million foreign-born residents are believed to be unauthorized, enacted the Support Our Law Enforcement and Safe Neighborhoods Act (SB 1070) on April 23, 2010. Federal law requires foreigners to carry proof of their legal status, and SB 1070 requires foreigners to show IDs to state and local police officers who encounter them for other reasons but suspect they may be illegally in the United States—violators can be fined $2,500 or jailed up to six months. Arizona became the main point of passage to the United States for unauthorized migrants from Mexico about a decade ago, when unauthorized entry attempts shifted from California and Texas to the Arizona desert.

The Arizona law was criticized by President Obama, who said: "If we continue to fail to act at a federal level, we will continue to see misguided efforts opening up around the country." However, State Senator Russell Pearce (R-Mesa), author of SB 1070, expects the law to result in "attrition through enforcement"—that is, to reduce the number of unauthorized foreigners in Arizona. He said, "When you make life difficult [for the unauthorized], most will leave on their own." U.S. Senator John McCain (R-AZ), the Republican candidate for president in 2008, said: "I think [SB 1070] is a good tool" for Arizona because the federal government has not reduced illegal migration.

Critics, who predicted widespread racial profiling and mistaken arrests if the law goes into effect as scheduled on July 29, 2010, sued to block the implementation of SB 1070. The legal issue is likely to turn on whether Arizona police are engaged in lawful "concurrent enforcement" of immigration laws with federal authorities or in unlawful racial profiling. Since the 1940s, federal law has required immigrants to carry papers showing they are legally in the United States. A 2002 Department of Justice (DOJ) memo reversed a 1996 DOJ memo to conclude that state police officers have "inherent power" to arrest unauthorized foreigners for violating federal law.

The National Council of La Raza led a campaign of unions and church groups that urged governments, tourists, and businesses to boycott Arizona and urged major league baseball to move the 2011 All-Star Game scheduled for Phoenix if SB 1070 is not

repealed. About 30 percent of major league baseball players are Hispanic, and half of the 30 major league teams train in Arizona.

Most Americans support the Arizona law. A Pew Research Center poll in May 2010 found 59 percent support for the Arizona law; only 25 percent of respondents supported President Obama's handling of immigration. Over 70 percent of Pew's respondents supported requiring people to present documents showing they are legally in the United States to police if asked, and two-thirds supported allowing police to detain anyone encountered who cannot produce such documents.

The Pew and similar polls suggest wide gaps between elites who favor more immigration and legalization and masses who oppose amnesty and immigration. Former president Bill Clinton on April 28, 2010, said: "I don't think there's any alternative but for us to increase immigration" to help the economy grow and to fix the long-term finances of Medicare and Social Security.

Senate Democrats released a 26-page outline of a comprehensive immigration reform bill on April 29, 2010, the Real Enforcement with Practical Answers for Immigration Reform (REPAIR). The Democrats' REPAIR proposal emphasized enforcement to discourage illegal migration in an effort to win Republican support, but the framework will not be put into legislative language until there are Republican supporters.

Under REPAIR, border enforcement benchmarks would have to be met before legalization can begin; a commission would be created to evaluate border security and make recommendations to Congress within 12 months. REAPIR calls for more border patrol agents and an entry-exit system to ensure that foreign visitors depart as required.

REPAIR would require all U.S. employers to check new hires within six years via an improved E-Verify system, the Biometric Enrollment, Locally-Stored Information, and Electronic Verification of Employment (BELIEVE). BELIEVE, to be funded by fees, would be phased in beginning with industries employing large numbers of unauthorized foreigners and require U.S. employers to use scanners to check the validity of new Social Security cards with biometric markers such as fingerprints presented by workers. Civil money penalties for knowingly hiring unauthorized workers would triple.

REPAIR offers a relatively simple path to legal status for an estimated 11 million illegal migrants. Unauthorized foreigners in the United States by the date of enactment would register and pay fees to obtain a new lawful prospective immigrant status that would allow them to live and work legally in the country. After eight years, they could become immigrants by passing English and civics tests and paying more fees. The proposal promises to clear the backlog in family-based immigration within eight years, in part by lifting caps on immediate relatives of legal immigrants (immediate relatives of U.S. citizens can immigrate without delay, but there are queues for immediate relatives of immigrants).

REPAIR would change the immigrant selection system. Foreigners who earn masters and PhD degrees from U.S. universities in science and engineering and have U.S. job offers could obtain immigrant visas immediately. New antifraud provisions would apply to employers seeking H-1B and L-1 visas for foreign workers with at least bachelor's degrees, including a requirement that all employers (not just H-1B dependent employers as currently) try to recruit U.S. workers before hiring H-1Bs and not lay off U.S. workers to make room for H-1B foreigners.

For low-skilled workers, REPAIR includes the Agricultural Jobs, Opportunity, Benefits and Security Act (AgJOBS) bill, which would legalize up to 1.35 million unauthorized farm workers (plus their family members) and make employer-friendly changes in the H-2A program. The H-2B program, which admits up to 66,000 foreigners a year to fill seasonal nonfarm jobs, would add protections for U.S. workers while exempting returning H-2B workers from the 66,000 cap if the U.S. unemployment rate is below 8 percent.

A new three-year H-2C provisional visa would admit guest workers to fill year-round jobs; H-2C visa holders could change employers after one year of U.S. work. H-2C visas could be renewed once, allowing six years of U.S. work, and H-2C visa holders could become immigrants by satisfying integration requirements. The number of H-2C visas is to be adjusted according to unemployment and other indicators, but employers could obtain an H-2C visa for a foreign worker even if the cap has been reached if they agreed to pay higher-than-usual wages and additional fees.

A new Commission on Employment-Based Immigration (CEBI) would study "America's employment-based immigration system to recommend policies that promote economic growth and competitiveness while minimizing job displacement, wage depression and unauthorized employment." The CEBI would issue an annual report with recommendations and could declare immigration emergencies when it concludes there are too many or too few foreign workers.

President Obama called the Senate Democrats' REPAIR proposal "an important step" to fix "our broken immigration system." Failure to enact immigration reform, Obama said, would "leave the door open to a patchwork of actions at the state and local level that are inconsistent and, as we have seen recently, often misguided."

Conclusion

The United States is a nation of immigrants that first welcomed virtually all newcomers, later excluded certain types of immigrants, and, since the 1920s, has limited the number of immigrants with annual quotas. Immigration averaged over 1 million per year in the first decade of the 21st century, plus an additional 500,000 unauthorized foreigners a year settled in the country.

Americans are ambivalent about immigration. On the one hand, most are proud that the United States welcomes foreigners seeking opportunity, including the ancestors of

most Americans. On the other hand, Americans fear the economic, social, and cultural consequences of immigration. Congressional debates reflect these differences among Americans.

See also **Immigrant Workers (vol. 1); Immigration and Employment Law Enforcement (vol. 2); Racial, National Origin, and Religion Profiling (vol. 2)**

Further Reading

Archibold, Randal C., "U.S.'s Toughest Immigration Law Is Signed in Arizona." *New York Times* (April 23, 2010).

Borjas, George, *Heaven's Door: Immigration Policy and the American Economy.* Princeton, NJ: Princeton University Press, 1999.

Castles, Stephen, and Mark Miller, *The Age of Migration.* New York: Palgrave Macmillan, 2009.

Cornelius, Wayne A., Takeyuki Tsuda, Philip L. Martin, and James F. Hollifield, eds., *Controlling Immigration: A Global Perspective.* Stanford, CA: Stanford University Press, 2004.

Hsu, Spencer, "Senate Democrats' Plan Highlights Nation's Shift to the Right on Immigration." *Washington Post* (May 2, 2010).

International Organization for Migration, *World Migration Report.* 2010. www.iom.int/jahia/Jahia/policy-research/migration-research/world-migration-report-2010.

Martin, Philip L., and Elizabeth Midgley, *Immigration: Shaping and Reshaping America.* Washington, DC: Population Reference Bureau, 2006.

Martin, Philip, Manolo Abella, and Christiane Kuptsch, *Managing Labor Migration in the Twenty-First Century.* New Haven, CT: Yale University Press, 2006.

Migration News, http://migration.ucdavis.edu/

Pew Research Center, "Public Supports Arizona Immigration Law." May 12, 2010. http://pewresearch.org/pubs/1591/public-support-arizona-immigration-law-poll

"Senate: Immigration Reform Stalls," *Migration News* 14, no. 3 (July 2007). http://ruralwelfare.ucdavis.edu/mn/more.php?id=3294_0_2_0

Smith, James P., and Barry Edmonston, eds., *The New Americans: Economic, Demographic, and Fiscal Effects.* Washington, DC: National Academies Press, 1997.

United Nations Development Program, *Overcoming Barriers: Human Mobility and Development.* Human Development Report 2009. www.undp.org/hdr2009.shtml

INCLUSIVE SCHOOLING

J. Michael Peterson

Inclusive education is a movement that aims to have all students—including children with mild to severe disabilities, students considered gifted and talented, and students with other special needs—educated in general education classes with support and collaboration from specialists. Inclusive education had its beginning in the efforts of parents of children with disabilities, particularly severe disabilities, and professionals who

were concerned about the segregated lives for which these children were being prepared in special education classes and schools. The movement has built on language in laws of countries throughout the world that has required, as in the United States, education in the least restrictive environment for students with disabilities. Over time, advocates of inclusive education for students with disabilities have broadened their focus to include goals of achieving broad-based diversity embracing also those from various cultural and ethnic backgrounds, students considered gifted and talented, second language learners, and others. Similarly, advocates of inclusive education have joined with other initiatives to reform and improve schools overall.

The movement toward inclusive education promoted first by advocates of students with disabilities naturally dovetails with other efforts to improve the capacity of schools and educators to meet the needs of children—particularly related to the education of children considered gifted and talented and the critique of tracking in schools. Educators and parents were concerned with limitations in traditional public schooling for children considered gifted and talented. While some have sought separate classes and programs for these students, others have helped to foster new perspectives on curriculum and instruction in public schools. The movement to create differentiated instruction has sought to provide strategies to allow children with different abilities to learn the same content together without separate and segregated classes while providing appropriate supports and challenges to high-functioning children. Having its roots in the needs of children, this approach has been supported by advocates of students with disabilities.

Inclusive Education and Ability Diversity

For many years, some educators have sought to detrack schools. Tracking is a practice in which separate series of classes are designed for children considered at different functioning levels but not labeled as having disabilities—typically low, average, and above average. While used in many schools, particularly in middle and high schools, many researchers have argued that the practice has only small positive effects on the academic and cognitive achievements of high-performing students while often impacting on them negatively socially. For students considered average or below average, the practice is actively harmful, contributing to a watered-down curriculum and drawing out high-functioning students who act as good models and guides for other students.

Inclusive education, along with differentiated instruction and detracking, is controversial. This controversy takes many forms and is embedded in many different educational communities. For example, despite a reasonable amount of research related to the value of heterogeneous, inclusive learning for students who are gifted and talented, many concerned with those students continue to believe and argue for separate, pull-out programs as the only viable option for students who are gifted. Similarly, some in the special education and disability community argue that only separate special education programs can serve students with disabilities well.

From another perspective, the debate about inclusive education deals with the roles of professionals in the educational process. For general education teachers, inclusive education requires that they learn how to effectively teach students at very diverse levels of abilities together who may also have other challenging characteristics. Some argue that this is what teachers must do regardless of whether students who are gifted or have disabilities are present in the classroom. These individuals believe that inclusive education helps improve teaching and learning for all children. Others argue, however, that this is an unreasonable and unlikely expectation for teachers.

Perhaps the professional debate is most intense in the professional groups of many specialists who provide support and services in public schools. These include social workers, speech therapists, occupational therapists, physical therapists, special education teachers, gifted education teachers, sign language interpreters, and many more. Inclusive education dramatically changes the roles of these professionals. Traditionally, such professionals work with children in separate clinical environments, most often a room with equipment and tools used by the specialist. In inclusive education, however, specialists work in collaboration with the general education teacher and provide their services in the content of the general education class. Each of these specialists has a professional organization in which the merits of clinical and integrated services have been highly debated. Within each of these professions, however, there is a strong and enduring movement toward inclusive education.

As the inclusive education movement has developed over the last 20 years, it has been interesting to watch the shift of the movement and the way that this is expressed in language. In the United States, early on some called the concept *supported education,* adapting the language of the field of supported employment, where individuals with disabilities would be trained and supported on a job rather than in a separate training environment. The term *integrated education* was used to describe situations in which students with severe disabilities attend some general education classes (most often nonacademic subjects like music, art, and physical education) while maintaining their base in a separate special education classroom. However, *inclusive education* quickly became the preferred term. During a three-month period in 1990, numerous people began to use this term based on a similar thinking process. They had an image of a group of people with their arms around each other who saw individuals outside the group. "Come join us!" the group would say. This was the concept of being included; thus, the term inclusive education. Over time, many have used the word *inclusive* as an adjective to other key terms, such as *inclusive teaching* and *inclusive schooling.* These latter terms are associated with educators, parents, and researchers who see inclusive education as an integral part of effective school reform.

What is clear about inclusive education is that it challenges deeply held assumptions about the educational process. The traditional model posits that students of different abilities must be placed in different groups—separate classes, separate schools, separate

groups within classes. The assumption is that students cannot learn at their own level well if they are in a heterogeneous group—one, for example, in which a highly gifted student and a nonverbal student with a cognitive disabilities are learning U.S. history together. Interestingly, this oft-used example is based on an assumption rather than on any research. In fact, the available research tends to support the idea of an inclusive, heterogeneous approach to education. A recent review of literature failed to find any research support for this practice.

Public education is filled with statements about commitment to diversity. However, the elephant in the living room for schools is the natural distribution of a range of abilities across the human spectrum. We've heard the radio show from Minnesota, where "all kids are above average." That's the myth that all parents would like to believe—that their children are above average. Of course, when children are labeled with disabilities, part of what makes this hard for parents is that such a label is an official pronouncement that dashes the belief that their children are above average. In clear, cold, clinical terms, they are told that their children are below average.

With all the debates and discussion about education, it's hard to find a realistic discussion regarding how schools deal with ability diversity. Talk to any teacher, however, and ask the question: "What is the range of abilities of students in your class?" and he or she will likely tell you that those abilities range over three grade levels; some might even say four or five grade levels. Several research studies have validated these results in numerous school settings. Despite the reality, however, the usual discussion taking place in principles' and superintendents' offices and at school board meetings has to do more with what schools should be doing with special education students than with how to address the matter of the wide range in student abilities in general.

The concept of inclusive education, along with other related educational initiatives and movements, posits a different thesis regarding teaching students with ability differences. This thesis could be summarized as follows:

- Students learn and develop into full human beings when they learn together with students who are diverse in many characteristics, including gender, race, culture, language, and ability or disability.
- Educators have developed many strategies for instruction and teaching that will allow such inclusive teaching to be manageable for teachers and effective for all students, ranging from those with severe and multiple disabilities to students considered gifted and talented.

Research Findings and Applications

So what *does* the research say about the efficacy of inclusive education—that is, students with mild to severe disabilities, typical average students, students who are gifted and talented, racially and culturally diverse students learning together? As always, of course,

research in any meaningful question is never finished. However, here are some conclusions that are clear from the present research base:

- Studies that have systematically compared outcomes from inclusive education and separate programs most often show that academic and social gains are higher in inclusive classes. In some studies, the results were mixed. It is notable that no studies showed segregated education to produce greater academic or social outcomes. It is also notable that research to date does not distinguish between the quality of practices in the general education classroom. The only comparison was between inclusive classrooms and separate classes. It would appear likely that *quality* inclusive teaching practices would increase the positive impact of inclusive education even more.
- For students with cognitive disabilities, the more they are included in general education classes, the higher their academic, cognitive, and social functioning.
- Students with mild disabilities make better gains in inclusive than in pull-out programs.
- The quality and outcomes of individualized education plans is improved for students with moderate to severe disabilities.
- There is no evidence that academic progress is impeded, but there is evidence that it is increased in inclusive classes for students without disabilities.
- Instruction may be improved for all students at all levels as teachers learn skills of multilevel and differentiated instruction.
- Friendships and social interactions for students with disabilities expand in school and carry over to after-school contexts.
- Students with mild disabilities are less often accepted and more likely rejected due to behavior than nondisabled students. However, teachers can used numerous strategies for addressing issues of ability diversity that change this impact and create better classroom conditions for all students.
- Students without disabilities view their involvement with peers with disabilities positively. They gain an increased appreciation and understanding of diversity and often improve self-esteem and behaviors.

While research makes it clear that inclusive education is a desirable, effective practice, some argue that educators are neither willing nor able to make inclusive education a reality. Numerous research studies have documented problems that include: (1) poor planning and preparation; (2) inadequate supports for students and teachers; and (3) negative and adversarial attitudes of educators.

Despite the fact that much segregated education exists, the movement toward inclusive education continues to grow—sometimes with major thrusts ahead, sometimes with retrenchment for awhile, and with a growth of quiet efforts on the part of individual schools and teachers. Several comprehensive studies have documented case studies of

individual schools moving to implement inclusive education, including O'Hearn Elementary School in Boston, Souhegan High School in New Hampshire, and Purcell Marion High School in Cincinnati. The National Center on Educational Restructuring and Inclusion conducted a national study (1995) of hundreds of schools throughout the United States that were implementing inclusive education. Sixteen states have engaged in statewide initiatives for inclusive education. Other researchers and school change agents report that, when change efforts involve training, administrative leadership and support, in-class assistance, and other special services, the attitudes of teachers are positive. Some teachers view inclusive education as building on their existing positive teaching practices. Initially, teachers are often afraid of including students with severe disabilities. However, as teachers come to know such students and work with them, they come to value the experience and would volunteer to teach such students again. Finally, most teachers agree with the concept of inclusive education but are afraid they do not have the skills to make it work. As they have positive experiences with good administrative support, they become more comfortable and positive.

While some courts have ruled in favor of segregated placements, typically following failed attempts to include a child in a regular class, most have ruled in favor of inclusive education. Courts have upheld the principle of least restrictive environment and have stated that schools must, in good faith, consider inclusive placement of all students, no matter the severity of the disability, and students and teachers must be provided necessary supports and supplementary services. While the courts allow costs, amount of teacher time, and impact on other students to be considered, the standards are so high that denying an inclusive placement based on these issues is rarely supported.

These related concepts—inclusive education, differentiated instruction, and detracking—are being used in an increasing number of school reform models. In some cases, the focus is explicit and clear. In others, it is more implied by the stated values of the approach. The Coalition of Essential Schools, for example, has identified 10 principles of effective schooling. Schools move away from the 50-minute class period in high schools and develop larger blocks of instructional time, in which teachers work as interdisciplinary teams to engage students in substantive learning activities. Students demonstrate learning through substantive portfolios and yearly demonstrations to parents, other students, and the larger community. Accelerated schools stimulate the use of challenging and engaging teaching, typically reserved for gifted students, for all students, particularly those with learning challenges. The goal is to accelerate, not slow down, learning for *all* students through exciting, authentic teaching techniques or powerful learning. Accelerated schools engage teachers, administrators, parents, and the community to work together in teams to develop improved learning strategies for all students.

The Comer School Development Program brings another important perspective. According to James Comer, a psychiatrist, children need a sense of safety, security, and welcome if they are to learn. In his school development program, schools develop teams

to facilitate partnerships with parents and communities and an interdisciplinary mental health team consisting of teachers, a psychologist, a social worker, and others to deal with holistic needs of both students and families. In each of these models, inclusive education is not specifically articulated as a component. However, the values and visions upon which each model is based often lead schools to incorporate inclusive education as a component of their school reform efforts when they use these models.

Whole schooling is a school reform framework that incorporates inclusive education as a central component of effective schooling for all children. The model posits that the purpose of public schools is to create citizens for democracy and the achievement of personal best learning for all students. The model is based on eight principles:

1. Create learning spaces for all.
2. Empower citizens for democracy.
3. Include all in learning together.
4. Build a caring community.
5. Support.
6. Partner with families and the community.
7. Teach all using authentic, multilevel instruction.
8. Assess students to promote learning.

Throughout the world in recent decades, and very recently in the United States, standards-based reform has been initiated with a goal to improve outcomes for students in public schools. The No Child Left Behind Act (NCLB), passed in 2002, initially aimed to have 100 percent of students pass standardized tests showing their proficiency in math and reading by the year 2014. (These goals later were reconsidered under the Obama administration.) In the United States, standards-based reform has been touted as a way of improving achievement and outcomes for all students, placing higher levels of accountability and expectations on public schools. In the United States, the NCLB law has come under increasing criticism as unrealistic and punitive, focusing on low levels of learning, limiting creativity and the education of the whole child.

Inclusive education can be viewed as both an extension of and, at the same time, in conflict with the concepts of standards-based reform and the laws designed for its implementation. On the one hand, many schools have decided that, if they are going to be evaluated on the performance of all students in the general education curriculum, students with disabilities need to be learning in general education classes, thus increasing their exposure and likelihood of doing well on standardized tests. On the other hand, standards-based reform identifies one set of expectations for all students. Thus, a fourth-grade student who is highly gifted, functioning on the eighth-grade level, will be expected to perform at the same level as a student with a cognitive disability, reading at the first-grade level. It is clear that, in this scenario, the gifted student is asked to perform far below her capacity, thus making the public school program irrelevant to her

needs. The student with a cognitive disability is asked to function at a level far above his capacity. The result will be frustration and humiliation. For this student, no matter what effort he puts forth, he will be considered a failure. In this regard, NCLB and inclusive schooling could be seen as at odds with one another.

The movement toward inclusive education is truly international in thrust. In 1994, the country members of the United Nations adopted the Salamanca Statement, which articulated the rights of individuals with disabilities in society. This document particularly focused on schools and supported the concept and practice of inclusive education and called on member nations to use the document to reform their schools in this direction.

The idea of inclusive schooling can be expected to continue as a movement for reform in education. Clearly, the concept is connected at its essence with the concept of democracy. It is not surprising, consequently, to find that inclusive education is most practiced in countries that have a democratic political tradition and that segregated schooling is most firmly entrenched in authoritarian regimes.

One indicator of this trend has been the development of National Inclusive Schools Week in the United States, which has been growing in visibility since 2001 (see www.inclusiveschools.org). According to its Web site:

> National Inclusive Schools Week highlights and celebrates the progress of our nation's schools in providing a supportive and quality education to an increasingly diverse student population, including students with disabilities, those from low socio-economic backgrounds, and English language learners. The week also provides an important opportunity for educators, students, and parents to discuss what else needs to be done in order to ensure that their schools continue to improve their ability to successfully educate all children.

For those interested in the quality of schooling for students with wide ranges of abilities, monitoring the restructuring of schools to incorporate inclusive education as a central component may be one measure to watch in the coming years.

See also **Early Childhood Education; Government Role in Schooling; School Choice**

Further Reading

McGregor, Gail, and R. Timm Vogelsberg, *Inclusive Schooling Practices: Pedagogical and Research Foundations: A Synthesis of the Literature that Informs Best Practices.* Baltimore: Paul H. Brookes, 1999.

National Center on Educational Restructuring and Inclusion, *National Study of Inclusive Education.* New York: The Center, 1995.

Peterson, J. Michael, and Mishael M. Hittie, *Inclusive Teaching: The Journey towards Effective Schooling for All Learners,* 2d ed. Upper Saddle River, NJ: Prentice Hall, 2009.

Sapon-Shevin, Mara, *Widening the Circle: The Power of Inclusive Classrooms.* Boston: Beacon Press, 2007.

Tomlinson, Carol Ann, Kay Brimijoin, and Lane Narvaez, *The Differentiated School: Making Revolutionary Changes in Teaching and Learning.* Alexandria, VA: ASCD, 2008.

Vitello, Stanley J., and Dennis E. Mithaug, eds., *Inclusive Schooling: National and International Perspectives,* Mahwah, NJ: Lawrence Erlbaum.

J

JUVENILE DELINQUENCY

Tonya Lowery Jones

The role of the family as a social institution is essentially to prepare children for adulthood. To accomplish this task, the family is comprised of values and norms and different statuses and roles, all of which are devoted to achieving the goals of the family as well as that of society. However, this is no easy task. Families are often scrutinized when a child displays delinquent behavior. Of particular concern are the ways that families might promote or prevent juvenile delinquency. Among the areas of concern when examining the link between family and delinquency are traditional family values, child-rearing practices, the influence of the mass media, and parental responsibility.

Social scientists, too, have identified a variety of factors that they believe contribute to juvenile delinquency. These factors include the lack of parental supervision; a lack of discipline; a lack parental monitoring; the lack of attachment to prosocial institutions such as school, community, and church; low income; poor housing; a large family size; low educational attainment; associations with other delinquents; drug or alcohol abuse; and the criminal behavior of parents and siblings. Social scientists suggest that it is not just one single factor, but many factors working together, that increase the likelihood of juvenile delinquency.

Juvenile Delinquency in Perspective

In the United States, juvenile delinquency is a social problem affecting families, communities, and society as a whole. Federal Bureau of Investigation (FBI) statistics show that

violent crime accounts for approximately 12 percent and that property crime accounts for approximately 88 percent of all serious crime in the United States. The FBI's Uniform Crime Reports estimate that about 1.4 million violent crimes and 9.8 million property crimes occurred nationwide in 2008, with 2.3 million people arrested for both types of offenses. Of those arrested in 2008 for violent and property crimes, about 415,000 (approximately 18 percent of the arrests) were persons under the age of 18, and of these arrests, about 118,000 (approximately 28 percent) were of persons under the age of 15 (U.S. Department of Justice, Federal Bureau of Investigation 2009). Given these statistics, it is understandable why there is concern over juvenile delinquency.

Juvenile delinquency refers to persons under a state-established age limit who violate the penal code. This means the law breaking was done by a child. In the eyes of the law, the only difference between a criminal and a delinquent is the person's age, and the state-established age limit varies from state to state. In the eyes of the law, a juvenile officially becomes an adult at 16 in 3 states, at 17 in 7 states, at 18 in 39 states, and at 19 in 1 state. Furthermore, delinquency is comprised of two parts. The first part includes property crimes like arson, burglary, larceny, and motor vehicle theft, while violent crimes include assault, robbery, rape, and murder, all of which would be considered crimes if committed by adults. The second part includes status offenses that are law violations that only apply to juveniles. This would include curfew violations, running away, and truancy. These status offenses are not violations of criminal law but are undesirable behaviors unlawful only for juveniles. It is believed that these offenses, if not dealt with, may lead to more serious delinquent behaviors in the future.

Therefore, the juvenile justice system takes steps to correct the behavior of juveniles and to try to change their behavior before they get involved in more serious property or violent crimes. It is the goal of juvenile courts, and has been since the first juvenile court was established in 1899, to prevent delinquent behavior and rehabilitate young offenders as apposed to just punishing them. This is why juveniles are not labeled *criminal* and their hearings are conducted in an informal atmosphere, where testimony and background data are introduced as opposed to a trial that determines guilt or innocence. In addition, the juvenile-court judge plays more of a parental role, reviewing the behavior of the juvenile offender in a less threatening environment than that of an adult criminal court. The juvenile court judge then determines an appropriate form of discipline, if any, and a course of action designed to prevent future delinquent behavior. Interestingly, many researchers believe that the majority of serious delinquent offenses are committed by a relatively small group of offenders and expect this delinquent population to maintain the antisocial behavior into adulthood.

Arenas for Debate

Family Values

The debate over the family's role in juvenile delinquency covers a variety of areas such as family values, child-rearing practices, the influence of the mass media, and parental

responsibility. The central focus of this debate is on the lack of traditional family values in a so-called traditional family. Conservatives believe that alternative family forms like single-parent families, blended families, cohabitating families, and gay and lesbian families fail to instill traditional values in children. They believe that the traditional family is the foundation for strong values, norms, and an overall healthy society. Therefore, they push for a return to the traditional family, where mothers stay home and fathers are breadwinners, with a focus on traditional family values. In addition, they encourage parents to spend more time with their children and focus more on the family's needs as opposed to the individual's needs. For them, anything that threatens the family is considered a social problem. As a result, they believe that living together without marriage (i.e., cohabitation), premarital childbearing, divorce, and single parenting are social problems that weaken society and place children at risk. Conservatives point out that children are most affected by these social problems in that these factors not only increase their chances of ending up in a single-parent family, but they also increase their likelihood of living in poverty and put them at a higher risk for divorce as adults. The solution, according the conservatives, is to abolish no-fault divorce laws and discourage couples from living together in low-commitment relationships that favor so-called me-first values that support individualism over commitment.

Liberals, on the other hand, are more tolerant and supportive of the various alternative forms of families such as singlehood, cohabitation, single-parent families, blended families, and same-sex families. They believe people have the right to choose what type of family is right for them. They point out that family diversity is not new and that a variety of family forms have existed throughout history. In addition, liberals believe that this diversity is actually a solution to the historical problem of male-dominated households. They believe that the traditional family limits the opportunities of women and traps them in a male-dominated environment, which, in some cases, can be an abusive environment. According to liberals, alternative family forms are not the problem. The problem lies in the lack of tolerance for alternative family forms, in the push for the ideal traditional family (which discourages opportunities for women), and in poverty—all of which have a greater impact on women and children. Therefore, liberals feel the solution is to encourage more tolerance for alternative family forms, expand affordable child care programs so more women can work, and to enforce antidiscrimination laws so working women will be paid as much men.

Child Rearing

Much of the debate over child rearing in single-parent families is focused on the lack of parental supervision and the lack of guidance. Critics point out that, in many cases, single parents simply do not have enough time to meet the demands of adequate child rearing because of the demands placed on them to be the breadwinner and head of household as well as still maintain somewhat of a personal life. Unfortunately, the result is that children may not receive the parental supervision, guidance, and emotional

support they need to develop into law-abiding adolescents. Consequently, more delinquent children come from single-parent families than two-parent families. Estimates are that children from single-parent families are about 10 to 15 percent more likely to become delinquent than are children with similar social characteristics from two-parent families (Coleman and Kerbo 2006). Children who are raised in an affectionate, supportive, and accepting home are less likely to become delinquents. Moreover, children whose parents model prosocial behavior in addition to adequately supervising and monitoring their children's behavior, friends, and whereabouts, as well as assist their children in problem solving and conflict resolution are less likely to engage in delinquent behavior. The bottom line is that parents have the ability to teach their children self-control, right from wrong, and respect for others, or they can teach their children antisocial, aggressive, or violent behavior. Therefore, children who grow up in a home with parents who are uninvolved or negatively involved are at greater risk for becoming juvenile delinquents.

Of course, critics of child rearing in single-parent families are not simply advocating more discipline. If parental discipline is too strict or too lenient, it can promote delinquency. There is strong evidence to show that children raised in single-parents families—specifically, mother-only homes—are at a greater disadvantage than those raised in two-parent families. Single-parent neighborhoods, particularly with high levels of mother-only households, have a higher rate of delinquency, because working single-mothers have less opportunity to adequately supervise their children, leaving them more vulnerable to the influences of deviant peers. Critics also point out that, in addition to higher rates of delinquency, children reared in single-parent families, specifically mother-only homes, are more likely to live in poverty, score lower on academic achievement tests, make lower grades, and drop out of high school.

The Mass Media

Another area for debate is the influence of the mass media on juvenile delinquency. The mass media refer to television, movies, music, video games, print media, sports, and the Internet. All of these have considerable influence over attitudes and behavior, especially among those under the age of 18. Not surprisingly, the mass media are a controversial agent of socialization because of how much they influence attitudes and behavior. Because we live in a society that seems to crave violence, it is no surprise that these different forms of mass media cater to the desires of the public by producing violent television shows, movies, music, video games, and overzealously cover violent incidents in the news. This excessive exposure to violence not only desensitizes us as a society, but for those in under the age of 18, these influences seem to have a number of serious effects. Some of the effects include: (1) *aggressive behavior:* media violence teaches children to be more aggressive so they tend to be less sensitive to pain and suffering; (2) *fearful attitudes:* media violence causes children to be more fearful of the world around them; and

(3) *desensitization:* media violence desensitizes children to real-life and fantasy violence, making it seem a normal part of everyday life. Exposure to media violence also increases a child's desire to see more violence in real-life and in entertainment, influencing them to view violence as an acceptable way to handle conflicts.

Other studies link excessive exposure to media violence to health problems, alcohol and tobacco usage, sexual activity, poor school performance, and more. These studies show that the effects of excessive exposure include: (1) decreased physical activity, which leads to obesity and other health problems; (2) photic seizures; (3) insomnia; (4) a decreased attention span; (5) impaired school performance; (6) decreased family communication; (7) increased sexual activity, which may lead to teen pregnancy and sexually transmitted diseases; and (8) an increased usage of alcohol and tobacco. Children ages 8 to 18 spend, on average, 44.5 hours per week (equivalent to 6.5 hours daily) in front a computer, watching television, or playing video games; by the time a child reaches age 18, he or she will have witnessed on television alone, with average viewing time, over 200,000 acts of violence, which include 40,000 acts of murder (Kirsh 2006). Children will view more than 100,000 acts of violence, including 8,000 acts of murder, by their first day in junior high school. Given the frequency of exposure to violence, children's violence and delinquency should not be surprising.

All media violence is not equal in its effects, however. The violence portrayed in cartoons is usually presented in a humorous fashion (67 percent of the time) and is less likely to depict long-term consequences (5 percent of the time) (BabyBag.com n.d.). Considering that the average preschooler watches mostly cartoons, this poses a greater risk for younger children because they have difficulty distinguishing between fantasy and reality. Therefore, they are more likely to imitate the violence they have seen. Researchers indicate that parents can be effective in reducing the negative effects of violent media viewing. Some of this can occur by parental understanding and utilization of television ratings. Other suggestions include watching television with one's child to permit discussion of difficult issues, turn the television off if the program is unacceptable, limit the time and type of programs watched, screen programs beforehand, and explain the differences between fantasy and reality.

Leonard Eron and Rowell Huesmann, psychologists at the University of Michigan who have studied the viewing habits of children for decades, found that the single factor most closely associated with aggressive behavior in children was watching violence on television. In testimony before Congress in 1992, they observed that television violence affects young people of all ages, of both genders, at all socio-economic levels. They noted that the effect is not limited to children who are already disposed to being aggressive(Bushman and Huesmann 2001). It is interesting that this has been a major issue for decades and that many key people, including former Surgeon General Dr. Jesse Steinfeld, have testified in numerous hearings on the topic, yet it is still a major issue.

Parental Responsibility

Parental responsibility is yet another area of concern regarding juvenile delinquency. Fundamentally, parental responsibility suggests that parents are to ensure that their children are protected, their needs are met, and their behavior is monitored. In addition, parents are responsible for socializing their children by instilling in them a sense of right, wrong, and the norms of society, helping them develop the skills they need to participate in society and shaping their overall development so that they are productive, law-abiding adolescents and adults.

However, when parents fail to ensure that their child or children develop into law-abiding adolescents, who is to blame? To what extent are parents responsible for their children's behavior? This has been an issue throughout U.S. history, and over time various types of legislation have addressed this specific question. Historically, the overall objective of these various laws was to require parents to provide the necessities for their children and to prohibit abuse or abandonment of minor children. However, due to the growing concern over juvenile delinquency, legislators have been prompted to expand laws regarding parental responsibility. More recently, parental responsibility goes beyond simply feeding, clothing, and loving one's children. Recent laws hold parents accountable for their child's actions by imposing various sanctions, including possible incarceration, fines, community service, and restitution. In addition, many states have enacted laws that require more parental involvement in juvenile court dispositions such as hearings, court-ordered treatment, counseling, training, rehabilitation and educational programs, and probation. Unfortunately, there is not enough comprehensive research on this subject to fully understand the effectiveness of parental responsibility laws. Whether the laws accomplish their intended purpose and have an effect on juvenile crime rates remains to be seen.

Conclusion

Solutions to the problem of juvenile delinquency are varied and have shown limited success at reducing crime among youth. Perhaps the slow pace of change is the result of the different schools of thought regarding the origins of delinquent behavior working in opposition to each other. Family, as the primary institution for rearing children, has been targeted as both the cause of and a preventive measure for juvenile delinquency. For some constituencies, the solution is encouraging traditional two-parent families with traditional values while discouraging other families forms such as single-parent families, cohabitating families, and same-sex families. For others, the solution is tolerance of alternative family forms and more focus on the overall well-being of children regardless of their parent's marital status or sexual orientation.

Social scientists have determined that it is not just one single factor that increases the likelihood of juvenile delinquency, but rather many factors in conjunction. Of the many

factors, advocates have determined that a healthy home environment is the single most important factor and that adequate parental supervision is the second most important factor in decreasing the likelihood of delinquent behavior. Understandably, parents play a crucial role in a child's moral development, so it is their job to instill in their children a good sense of right and wrong and to promote healthy development in a healthy environment. Therefore, adolescents who live in a home environment with a lack of parental supervision and monitoring, poor or inconsistent discipline, a lack of positive support, a lack of parental control, neglect, and poverty are more likely to engage in delinquent behavior. On the other hand, for those adolescents in a positive home environment—which includes family support, nurturance, monitoring, and involvement—statistics show they are more likely to engage in prosocial behavior. In other words, children need parental affection, support, love, cohesion, acceptance, and parental involvement. When these elements are missing, the risk of delinquency increases.

See also **Addiction and Family; Foster Care; Juvenile Justice (vol. 2); Juveniles Treated as Adults (vol. 2)**

Further Reading

Agnew, Robert, *Juvenile Delinquency: Causes and Control,* 3d ed. New York: Oxford University Press, 2008.

BabyBag.com, "Facts about Media Violence and Effects on the American Family." http://www.babybag.com/articles/amaviol.htm

Brown, Kevin D., and Catherine Hamilton-Giachritsis, "The Influences of Violent Media on Children and Adolescents: A Public Health Approach." *Lancet* 365 (2005): 702–710.

Bushman, B. J. and L. R. Huesmann, "Effects of Televised Violence on Aggression." In *Handbook of Children and the Media*, eds. Dorothy G. Singer and Jerome L. Singer. Thousand Oaks, CA: Sage, 2001.

Caldwell, Roslyn M., Susan M. Sturges, and N. Clayton Silver, "Home Versus School Environments and Their Influences on the Affective and Behavioral States of African American, Hispanic, and Caucasian Juvenile Offenders." *Journal of Child and Family Studies* 16 (2007): 119–132.

Children and Television Violence, http://www.abelard.org/tv/tv.htm

Coleman, James William, and Harold Kerbo, *Social Problems,* 9th ed. Upper Saddle River, NJ: Pearson Prentice Hall, 2006.

Focus on the Family, http://www.family.org

Kirsh, Steven J., *Children, Adolescents, and Media Violence: A Critical Look at the Research.* Thousand Oaks, CA: Sage, 2006.

Media Awareness Network, http://www.media-awareness.ca/english/issues/violence/index.cfm

National Institute on Media and the Family, http://www.mediafamily.org/facts/facts_vlent.shtml

Office of Juvenile Justice and Delinquency Prevention: A Component of the Office of Justice Programs, U.S. Department of Justice. http://ojjdp.ncjrs.org/

Quinn, William H., *Family Solutions for Youth at Risk: Applications to Juvenile Delinquency, Truancy, and Behavior Problems.* New York: Brunner-Routledge, 2004.

Quinn, William H., and Richard Sutphen, "Juvenile Offenders: Characteristics of At-risk Families and Strategies for Intervention." *Journal of Addictions and Offender Counseling* 15 (1994): 2–23.

Siegel, Larry J., *Juvenile Delinquency: Theory, Practice, and Law,* 9th ed. Belmont, CA: Wadsworth, 2006.

Thompson, William E., and Jack E. Bynum, *Juvenile Delinquency: A Sociological Approach,* 8th ed. Boston: Allyn & Bacon, 2009.

U.S. Department of Justice, Federal Bureau of Investigation, *2008 Crime in the United States.* September 2009. http://www.fbi.gov/ucr/cius2008/index.html

M

MENTAL HEALTH

Donna R. Kemp

Mental health has been and still is a problematic policy area. People with mental illness have faced many problems from society throughout the ages. In the past, people with mental illness were often believed to be possessed by demons or the devil and were left in the care of their families or left to wander. They were sometimes mistreated. Eventually, society chose to hospitalize people with mental illness, but their status was reflected in Pennsylvania, where the first mental hospital was placed in the basement of the general hospital. Mental health has continued to be the poor stepchild of the wider health care arena.

History

Institutional care began in a few Arab countries; asylums were established as early as the eighth and ninth centuries to care for people with mental illness. Somewhat later in Europe, during the Middle Ages, the community began to seek confinement of people who were different. Some monasteries housed the mentally ill, usually treating them well. As societies became more urban and families became less able to care for persons with mental illness, eventually society chose to hospitalize people with mental illness.

In 1828, Horace Mann, an educational reformer, put forward a philosophy of public welfare that called for making the "insane" wards of the state. This philosophy was widely put into effect, and each state assumed responsibility for those with mental illness in that state. States often built their psychiatric hospitals in rural areas. Moral

treatment and compassionate care were the main approach at this time, but with rapid urbanization and increased immigration, the state mental health systems began to be overwhelmed. Many elderly people who in rural areas would have been cared for at home could no longer be cared for when their families moved into the cities. Women, as well as men, frequently worked away from home, and there was no one to care for the elderly or see to their safety. Many people with brain-based dementias, probably caused by Alzheimer's or small strokes, became patients in mental institutions for the remainder of their lives. The institutions also had many cases of people in the last stages of syphilis. Many of those suffering from mental retardation, epilepsy, and alcohol abuse were also committed to the institutions; in hard economic times, the number of people admitted to the institutions increased.

By 1861, there were several state mental hospitals, and one federal hospital in Washington, DC. In the second half of the 19th century, attitudes changed and group and treatment practices deteriorated. Massive immigration to the United States led to a growing proportion of foreign-born and poor in the state hospitals. Most psychiatrists, community leaders, and public officials were native-born and generally well off and thus apt to be prejudiced against those who were neither (Rochefort 1993).

As more and more people were admitted to the institutions, the focus changed from treatment to custodial care. Commitment laws sent the dangerous and unmanageable to the state hospitals. More patients were alcoholic, chronically disabled, criminally insane, and senile. Treatment practices deteriorated. The institutions became overcrowded, and, by the late 19th century, the state hospitals were places of last resort, with mostly long-term chronic patients. Better treatment was found in small private psychiatric hospitals for those who could afford the care.

The 20th Century

As the 19th century drew to a close, a new idea, promoted by what is known as the eugenics movement, took hold. This movement held that insanity could be inherited. Professional conferences, humanitarian groups, and state legislatures increasingly identified insanity as a special problem of the poor. Insane persons were increasingly seen as possibly violent and incurable and as a threat to the community (Caplan 1969). These beliefs led to numerous state laws restricting the lives of people with mental disabilities, including involuntary sterilization laws and restrictive marriage laws. As a result, 18,552 mentally ill persons in state hospitals were surgically sterilized between 1907 and 1940. More than half of these sterilizations were performed in California (Grob 1983, 24).

Mental hospitals turned to the use of mechanical restraints, drugs, and surgery. Psychiatrists spent time diagnosing large numbers of patients rather than delivering individualized care. State legislatures did not increase budgets to meet the needs of the growing hospitals. Physical plants became overcrowded and deteriorated. Salaries were not adequate to attract good personnel. Superintendents no longer saw patients but spent

their time on administrative tasks, and their influence declined as they became subordinate to new state boards of charity, which were focused on efficiency (McGovern 1985).

The first half of the 20th century saw some promising new treatment developments and attempts to establish community-based systems of services. In 1909, Clifford Beers founded the National Committee for Mental Hygiene to encourage citizen involvement, prevention of hospitalization, and aftercare for those who left the hospitals. The custodial institutions remained the main site of care, but some institutions developed cottage systems that placed more able patients in small, more homelike structures on the hospital grounds, and family care programs were created to board outpatients. All these approaches, however, served only a small part of the population.

Although the Division of Mental Hygiene was created in 1930 in the U.S. Public Health Service, it did not address institutional or community mental health care in general but only narcotics addiction. During the Great Depression of the 1930s and World War II, few resources were available to psychiatric institutions, but they continued to grow anyway. Some hospitals had as many as 10,000 to 15,000 patients. From 1930 to 1940, the number of people in state mental hospitals increased five times faster than the general population to a total of 445,000 (Rothman 1980, 374).

Four new therapies arose in the 1930s: insulin coma therapy, metrazol-shock treatment, electroshock therapy, and lobotomy. These treatments were given to thousands of patients, in many cases with devastating results; nevertheless, they were widely used until the appearance of antipsychotic medications in the 1950s.

The National Mental Health Act of 1946 brought the federal government into mental health policy in a significant way. The act created new federal grants in the areas of diagnosis and care, research into the etiology of mental illness, professional training, and development of community clinics as pilots and demonstrations. The act mandated the establishment of a new National Institute of Mental Heath (NIMH) within the Public Health Service to encourage research on mental health.

The states moved toward reform when, in 1949, the Governors' Conference released a report detailing the many problems in public psychiatric hospitals, including obsolete commitment procedures; shortages of staff and poorly trained staff; large elderly populations; inadequate equipment, space, and therapeutic programs; lack of effective state agency responsibility for supervision and coordination; irrational division of responsibility between state and local jurisdictions; fiscal arrangements damaging to residents; and lack of resources for research. In 1954, a special Governors' Conference on Mental Health adopted a program calling for expansion of community services, treatment, rehabilitation, and aftercare.

During the 1950s, the states pursued both institutional care and expansion of community services. In the mid-1950s, major deinstitutionalization of hospitals began. The introduction of psychotropic medicines to reduce and control psychiatric symptoms created optimism that some mental illnesses could be cured and others could be modified

enough to allow persons with mental illness to function in the community. Because of the apparent success of the drugs, more emphasis was placed on a biochemical view of mental illness. The discovery and use of psychotropic drugs in the 1950s had a profound impact on the treatment of the mentally ill. Tranquilizing drugs were widely used in the state institutions and played a major role in deinstitutionalization. Early discharge programs became common, and the inpatient census of public psychiatric hospitals continued to steadily decline.

In 1955, the Mental Health Study Act was passed, leading to the establishment of the Joint Commission on Mental Illness and Health, which prepared a survey and made recommendations for a national program to improve methods and facilities for the diagnosis, treatment, and care of the mentally ill and to promote mental health. The commission recommended the establishment of community mental health centers and smaller mental hospitals. It laid the groundwork for the Community Mental Health Centers Act of 1963. During the 1960s, the civil rights movement and public interest law strengthened mental health policy and encouraged community mental health treatment and the decline of the role of psychiatric hospitals. The belief that the community would be involved in care for the mentally ill became more widely accepted, and the passage in 1965 of Medicaid and Medicare stimulated the growth of skilled nursing homes and intermediate-care facilities. In 1971, Title XIX of the Social Security Act (Medicaid) was amended to require institutional reform and the meeting of accreditation standards by facilities in order to receive federal funding. But the fiscal erosion of the 1970s and the 1980s took a heavy toll on state and local mental health programs.

In 1990, only one in five of those with mental illness received treatment (Castro 1993, 59). The National Institute of Mental Health estimated the cost of treating mental illness at $148 billion, which included $67 billion for direct treatment (10 percent of all U.S. health spending) and $81 billion for indirect costs such as social welfare and disability payments, costs of family caregivers, and morbidity and mortality connected to mental disorders (Castro 1993, 60).

In the U.S. Department of Health and Human Services, from which federal funding still largely comes, mental health programs were organized in 1992 into the Substance Abuse and Mental Health Services Administration, consisting of the Center for Mental Health Services, the Center for Substance Abuse Prevention, and the Center for Treatment Improvement. The institutes on mental health, drug abuse, and alcohol and alcohol abuse were shifted to the National Institutes of Health and began to focus only on promotion of research in mental health and substance abuse. The Department of Veterans Affairs and the Bureau of Indian Affairs in the Department of the Interior provided community mental health services directly in a number of locations.

Once states became responsible for the distribution of the federal grant funds for mental health, many funds were shifted from the community mental health centers to community mental health services more responsive to the needs of the seriously mentally

ill (Hudson 1983). The complex intergovernmental array of organizations involved made coordination difficult.

Mental health care continued to be both inpatient and community based, but the site of inpatient care shifted from state institutions to general acute care hospitals in the community, with many people seen in psychiatric units in general acute care hospitals or in short-term public or private community inpatient facilities. Children began to be able to receive services in special community or residential treatment centers for children. The cost of inpatient care rose at all sites, but most sharply in general hospitals. Total costs were held in check because the length of stay decreased. Most of the decrease occurred in state mental hospitals and Veterans Administration facilities, even though those facilities had the longest stays (Kiesler and Sibulkin 1987). Community inpatient services were complemented by community outpatient services, such as the private practices of mental health professionals, family services agencies, community mental health centers, social clubs, day hospitals, halfway houses, group homes, assisted housing, and foster care.

Mental Health Policy and Services Today

In the 21st century, the history of modern mental health care continues to be complex and cyclical. There is a tug and pull between many of the viewpoints about mental illness. Should people with mental illness be free to manage their lives as they see fit, or should there be social control by the government? Is mental illness physical, environmental, or both? Is mental illness a part of physical illness, a brain disease or disorder?

As was the case in the 20th century, the United States continues to have no national mental health system. Each state has its own distinctive system. This approach allows for adjusting programs to the unique characteristics of different states and communities but has the disadvantage of creating disparities and differences in levels of community services. The private, nonprofit, and public sectors all play major roles in the delivery of services to people with mental illness. The system remains two-tiered, with lower-income people relying on the public sector and higher-income people on the private sector. People with insurance or sufficient income can access private mental health providers, from private psychotherapists, to general hospital psychiatric units in private and nonprofit hospitals, to private psychiatric facilities. The public mental health system remains the provider of last resort for people needing mental health services. However, there is a trend for more of these services being contracted out to the private sector rather than being provided by public agencies. The missions of most state mental health agencies focus resources on people with the most severe and persistent mental illnesses, such as bipolar disorder and schizophrenia.

The states remain the critical players in the development and maintenance of the public mental health system. "In fact, mental health more than any other public health or medical discipline, is singled out for exclusion and discrimination in many federal

programs because it is considered to be the principal domain of the states" (Urff 2004, 84). In most states, the mental health system is administered by a state mental health agency. This agency may be an independent department but is most often an agency within a larger department, usually health or social services. As states downsize and close public psychiatric hospitals, services provided by private and nonprofit organizations take on increasing importance.

Who Are the Mentally Ill?

Mental disorders occur across the lifespan, affecting all people regardless of race, ethnicity, gender, education, or socioeconomic status. The World Health Organization has estimated that approximately 450 million people worldwide have mental and behavioral disorders, and mental disorders account for 25 percent of all disability in major industrialized countries (World Health Organization 2001, 7). The most severe forms of mental disorders have been estimated to affect between 2.6 and 2.8 percent of adults aged 18 years and older during any one year (Kessler, Berglund, Zhao, et al. 1996; National Advisory Mental Health Council 1993). About 15 percent of adults receive help from mental health specialists, while others receive help from general physicians. The majority of people with mental disorders do not receive treatment, and 40 percent of people with a severe mental illness do not look for treatment (Regier, Narrow, Rae, et al. 1993). Ronald C. Kessler, principal investigator of the National Comorbidity Survey Replication study, and colleagues (1996) determined that about half of Americans will meet the criteria for a *DSM-IV* (the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*) diagnosis of a mental disorder over the course of their lifetime, with first onset usually in childhood or adolescence. Based on their analysis, lifetime prevalence for the different classes of disorders were anxiety disorders, 28.8 percent; substance use disorders, 14.6 percent; and any disorder 46.4 percent. Median age of onset is much earlier for anxiety and impulse control disorders (11 years for both) than for substance abuse (20 years) and mood disorders (30 years) (Romano 2005).

The disease model of mental illness remains important. For the seriously mentally ill, it places a focus on finding and treating the causes of the emotional, behavioral, and/or organic dysfunction, with an approach based on diagnosis, treatment, and cure or recovery. The treatment focus is on short-term inpatient care, with the emphasis on medications and the ability to function in the community. Various services are provided to assist maintenance in the community, including housing, employment, and social services.

The mental health approach to people with less serious emotional disorders is focused on outpatient treatment, often through prescription of medication by a general practitioner. Primary care physicians provide at least 40 percent of mental health care. Employee assistance programs help employees in the workplace with assessment of mental health issues and referral to appropriate treatment sources. Those who are less seriously mentally ill are sometimes referred to in a derogatory way as the "worried well." When resources are short, conflict can arise as those who speak on behalf of the seriously and chronically

mentally ill do not wish to see resources expended on the less seriously ill. However, many people at one time need assistance with a mental health problem in their lives, and failure to address their problems can lead to significant costs to society, including suicide.

Studies suggest that the prevalence of mental illness is about equal in urban and rural areas, but access to services is much more difficult in rural areas. Ninety-five percent of the nation's rural counties do not have access to a psychiatrist, 68 percent do not have access to a psychologist, and 78 percent lack access to social workers (California Healthline 2000).

Consumer Choice and Involuntary Treatment

What is now known as the consumer, or survivor, movement is generally recognized as having begun in the early 1970s, when several small groups of people who had been involved in the mental health system began to meet in several cities to talk about their experiences. They began to develop agendas for change.

Involuntary treatment is an issue that engages the attention of not only mental health consumers but family groups, providers, citizen advocacy groups, and law enforcement. On one side of the issue are those who would outlaw the use of force and coercion completely to protect individuals from dangerous interventions and abuse. They believe forced treatment violates basic civil and constitutional rights and erodes self-determination. They also believe forced treatment can lead to distrust and an avoidance of voluntary treatment. Those favoring involuntary treatment are found along a continuum, ranging from those who believe such treatment is justified only under extreme situations, when people are demonstrably dangerous to themselves or others, to those who believe involuntary treatment is acceptable based on a broad set of criteria.

Mental Illness and Criminal Justice

Along with homelessness and other negative outcomes of deinstitutionalization, the number of mentally ill in the correctional system has increased sharply. Crime, criminal justice costs, and property loss associated with mental illness cost $6 billion per year in the late 1990s, and people with mental illnesses are overrepresented in jail populations (U.S. Department of Health and Human Services 1999). Many of these inmates do not receive treatment for mental illness. A recent report by the Pacific Research Institute for Public Policy on criminal justice and the mentally ill noted that the total costs for state and local governments for arrest, processing in court, and jail maintenance of people with mental illnesses exceeds the total state and local government expenditures on mental health care (California Council of Community Mental Health Agencies n.d.). According to a 1999 Department of Justice report, more than 16 percent of adults in jails and prisons nationwide have a mental illness, and more than 20 percent of those in the juvenile justice system have serious mental health problems (Pyle 2002). There are more mentally ill people in U.S. prisons and jails (283,000 in 1998) than in mental hospitals (61,772 in 1996) (Parker 2001).

Recovery

Recovery is now a major element in health reform. William Anthony's (1993) "Recovery from Mental Illness: The Guiding Vision of the Mental Service System in the 1990s" used the phenomenon of recovery identified by Patricia Deegan and others to formulate a plan to become a guiding vision for the provision of mental health services. He used consumers' narratives of their recovery experiences to describe processes, attitudes, values, goals, skills, feelings, and roles that lead to a satisfying and contributing life even with limitations of illness. He stated that the process of recovery can occur without professional aid, but it can be helped by the support of trusted others, and it might be correlated with a reduction in the duration and frequency of intrusive symptoms. He held that individuals needed to recover from the consequences of illness, including disability, disadvantage, and dysfunction, as much as, or more than, from the illness itself. He argued that much of the disability, disadvantage, and dysfunction that people with mental illness experience are caused by the systematic and societal treatment of individuals who have psychiatric diagnoses. He believed that two models of service provision promote recovery: the psychiatric-rehabilitation model and the community-support-system model.

Conclusion

Mental health policy and services have traveled a long way from the days of the overcrowded state mental hospital. The civil rights movement brought many protections to people with mental illness. Yet the very deinstitutionalization of mental patients and the lack of funding for community care have led to new problems of homelessness and growing numbers of persons with mental illness in the criminal justice system. Although the stigma against people with mental illness is declining, many people with mental illness still have no access to treatment.

See also **Addiction and Family; Eating Disorders; Self-Injury and Body Image; Suicide and Suicide Prevention; Health Care (vol. 1); Insanity Defense (vol. 2); Social Justice (vol. 2)**

Further Reading

Anthony, W. A., "Recovery from Mental Illness: The Guiding Vision of the Mental Health Service System in the 1990s." *Psychosocial Rehabilitation Journal* 16 (1993): 11–23.

California Council of Community Mental Health Agencies, *The Development of California's Publicly Funded Mental Health System*. Prepared by S. Naylor Goodwin and R. Selix. http://www.cccmha.org

California Healthline, *Mental Health Neglected in Rural Areas. California Healthcare Foundation.* November 29, 2000. http://www.california healthline.org

Caplan, R. B., *Psychiatry and the Community in Nineteenth-Century America: The Recurring Concern with Environment in the Prevention and Treatment of Mental Disorder.* New York: Basic Books, 1969.

Castro, J., "What Price Mental Health?" *Time* (May 31, 1993): 59–60.

Frank, Richard G., and Sherry A. Glied, *Better but Not Well: Mental Health Policy in the United States since 1950.* Baltimore: Johns Hopkins University Press, 2006.

Grob, G. N., *Mental Illness and American Society, 1875–1940.* Princeton, NJ: Princeton University Press, 1983.

Grob, G. N., *The Mad among Us: A History of the Care of America's Mentally Ill.* New York: Free Press, 1994.

Hudson, C. G., "An Empirical Model of State Mental Health Spending." *Social Work Research and Abstracts* 23 (1983): 312–322.

Kelly, Timothy A., *Healing the Broken Mind: Transforming America's Failed Mental Health System.* New York: New York University Press, 2010.

Kemp, Donna R., *Mental Health in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Kessler, R. C., P. A. Berglund, S. Zhao, et al., "The 12-Month Prevalence and Correlates of Serious Mental Illness." In *Mental Health, United States, 1996,* ed. R. W. Manderschied and M. A. Sonnenschein. DHHS Publication No. (SMA) 96–3098. Rockville, MD: Center for Mental Health Services, 1996.

Kiesler, C. A., and A. E. Sibulkin, *Mental Hospitalization: Myths and Facts about a National Crisis.* Newbury Park, CA: Sage, 1987.

McGovern, C. M., *Masters of Madness: Social Origins of the American Psychiatric Profession.* Hanover, NH: University Press of New England, 1985.

National Advisory Mental Health Council, "Health Care Reform for Americans with Severe Mental Illnesses: Report of the National Advisory Mental Health Council." *American Journal of Psychiatry* 150 (1993): 1437–1446.

Parker, Laura, "Families Lobby to Force Care." *USA Today* (February 12, 2001).

Pyle, E, "New Courts Aiming to Help Mentally Ill." *Columbus Dispatch* (December 26, 2002).

Regier, D. A., W. Narrow, D. S. Rae, et al., "The De Facto U.S. Mental and Addictive Disorders Service System: Epidemiologic Catchment Area Prospective 1-year Prevalence Rates of Disorders and Services." *Archives of General Psychiatry* 50 (1993): 85–94.

Rochefort, D. A., *From Poorhouses to Homelessness: Policy Analysis and Mental Health Care.* Westport, CT: Auburn House, 1993.

Romano, C. J., "Initial Findings from the National Comorbidity Survey Replication Study." *Neuropsychiatry Reviews* 6, no. 6 (2005). http://www.neuropsychiatryreviews.com

Rothman, D. J., *Conscience and Convenience: The Asylum and Its Alternatives in Progressive America.* Boston: Little, Brown, 1980.

Thompson, Marie L., *Mental Illness.* Westport, CT: Greenwood Press, 2006.

Urff, J., "Public Mental Health Systems: Structures, Goals, and Constraints." In *Mental Health Services: A Public Health Perspective,* 2d ed., ed. B. Lubotsky Levin, J. Petrila, and K. D. Hennessy. New York: Oxford University Press, 2004.

U.S. Department of Health and Human Services, *Mental Health: A Report of the Surgeon General—Executive Summary.* Rockville, MD: Department of Health and Human Services, 1999.

World Health Organization, *The World Health Report, 2001, Mental Health: New Understanding, New Hope.* Geneva: World Health Organization, 2001.

N

NEW RELIGIOUS MOVEMENTS

Tracy Sayuki Tiemeier and Michael Shally-Jensen

New religious movements have become big business, raising questions about their methods of recruitment, financial practices, and legitimacy. A new religious movement (NRM) is a spiritual or religious group that has emerged relatively recently and is unaffiliated with an established religious organization. Contemporary times find many NRMs growing at a fast rate. Such expansion could even be characterized as that of a growth industry, where an organization is in demand, expanding at a faster rate than the overall market. NRMs have become quite popular, no longer localized to a particular place or limited to a specific group of people. As people seek answers to their ultimate questions today, they have instant and equal access to NRMs (as much as to mainstream, established religions) through the Internet and mass media. As a result, the demand for information, materials, and contact with, by, and about NRMs has led to a flood of information, products, and services. From training seminars to collections of crystals, from red string Kabbalah bracelets to Scientology stress tests, memberships in and books and articles about new religious movements are on the rise.

What Is a New Religious Movement?

The term *new religious movement* arose as a designation for the many new religious organizations that formed in Japan after World War II. At that time, new religious freedoms and social upheaval provided fertile ground for such groups. The term was later used to describe other emergent religious groups around the globe.

The U.S. Immigration Act of 1965 lifted immigration restrictions from Asia, opening the doors to Asians, Asian religions, and their teachers. Groups such as the Unification Church (Family Federation for World Peace and Unification—popularly known as the Moonies) and the International Society for Krishna Consciousness (ISKCON—popularly known as the Hare Krishnas) attracted largely young, white, middle-class disciples. Asian religious groups provided responses to their problems that were different from mainstream U.S. traditions and became popular and controversial for this very reason.

The innovative and turbulent 1960s and 1970s also gave rise to other groups. While some employed more secular, psychological, and scientific methods and ideas, as in the case of the Church of Scientology, others drew on ancient or hidden traditions, as in the cases of the Covenant of the Goddess and the Order of the Solar Temple.

Other groups that had emerged in earlier times were also considered alongside these newer sects, and they, too, posed an alternative to mainstream U.S. religion. Some provided Christian alternatives, such as Christian Science, Jehovah's Witnesses, and The Church of Jesus Christ of Latter-Day Saints (Mormonism). Others emerged from African (La Regla de Ocha—Santería) or Native American (The Native American Church) beliefs and practices.

Scholars debate how "new" a movement has to be to constitute an NRM. While some would date a contemporary NRM to as early as the 19th century (such as the Baha'i Faith), others would argue that a new religious movement should have emerged no earlier than several decades before the present. Regardless, NRMs are not new in the sense that they pop up out of nowhere or within a spiritual vacuum. Some groups are centuries old or at least can trace their foundations or belief systems to ancient times. Indeed, NRMs often draw heavily on past revelations or traditions to authenticate their message. For example, Wicca claims an ancient past and lineage to distant pagan systems.

NRMs are often not religious in the traditional Western sense of maintaining belief in a named deity or deities, viewing core principles as stemming from a written text, or holding that faith is bound to ritual practices undertaken in an institutional setting. The Church of Scientology, for example, has specifically denied the label *religion* and instead emphasized its role in facilitating and maximizing personal development. The Self-Realization Fellowship, though it comes from a Hindu context, similarly does not require religious conversion or depend on any specific religious beliefs. Indeed, many groups have avoided the label *religion,* because it is understood as connoting the very thing that they originally found problematic and the very thing that their new adherents are seeking to abandon.

NRMs are widely categorized as *movements* because the term covers a wide range of organizational structures. Movements are generally fluid, but some new religious movements are highly organized and stratified.

KEY EVENTS IN THE HISTORY OF NEW RELIGIONS

1830—The Church of Christ (later called The Church of Jesus Christ of Latter-Day Saints) is founded by Joseph Smith.

1844—The beginnings of the Baha'i Faith, when the Báb (*gate*) starts teaching the local Persian Muslims about a coming prophet who would initiate a time of world peace.

1853—Mírzá Husayn'Alí receives a vision in prison that he is the prophet foreseen by the Báb and is the fulfillment of all the world religions.

1918—The Comanche chief Quanah Parker is credited with formalizing aspects of traditional peyotism to form the Native American Church.

1924—Paramahansa Yogananda establishes, in Los Angeles, the international headquarters of the Self-Realization Fellowship.

1930—Wallace Fard Muhammad teaches black power and Islam, marking the beginnings of The Nation of Islam.

1950—L. Ron Hubbard published *Dianetics: The Modern Science of Mental Health.* Four years later, he founds the Church of Scientology.

1955—Jim Jones founds the Wings of Deliverance, later to be called The People's Temple. The group sees Jones as a prophetic healer and incarnation of Christ.

1965—A. C. Bhaktivedanta Swami Prabhupada arrives in the United States and forms The International Society for Krishna Consciousness.

1960s—Wicca, a form of modern witchcraft first organized in the 1950s, receives increased notice as the name and other aspects take hold.

1968—Children of God, a blend of Jesus worshipers and hippie communitarians, is founded in California.

1971—The Movement of Spiritual Inner Awareness, based on meditation and mysticism, is founded by former Mormon Roger Delano Hinkins in California.

1974—Sun Myung Moon of the Unification Church holds a mass rally at Madison Square Garden in New York City, effectively launching the church as a movement in the United States.

1970s—The Rastafari movement gains hold in the United States, largely through the popularity of musician Bob Marley.

1975—Sōka Gakkai, a populist Buddhist new religion, founds an international umbrella organization.

1977—Maharishi Mahesh Yogi founds Transcendental Meditation as a modernization of classical yoga. The People's Temple is denied tax-exempt status and the group moves to Guyana, founding Jonestown.

1978—Mass murder-suicide in Jonestown; over 900 dead.

1980s—The New Age movement, drawing on occultism, esoteric beliefs, alternative medicine, and eco-spiritualism gains ground in the United States.

1984—Bhagwan Shree Rajneesh and his followers in Oregon undertake to poison members of the surrounding community in an effort to gain local political control.

1985—J. Z. Knight, emerging "channeler," makes her national television debut (on the *Merv Griffin Show*), sparking widespread interest in channeling.

1986—Shoko Asahara (b. Matsumoto Chizuo) founds Aum Shinrikyo in Tokyo, Japan. The movement blends Hinduism, Buddhism, and Christianity.
1992—Falun Gong, a "cultivation system" based on daily rituals of worship, is founded in China and spreads rapidly there and among Chinese communities elsewhere.
1993—The Bureau of Alcohol, Tobacco and Firearms raids the Branch Davidian compound in Waco, Texas. After a 51-day standoff, ATF agents moved in and stormed the complex. Over 80 died in a resulting fire.
1995—Aum Shinrikyo members release sarin gas in Tokyo subway, killing 12.
1997—Combining Christianity with UFO beliefs, members of Heaven's Gate kill themselves outside of San Diego when the comet Hale-Bopp appeared to them as the sign of the ship arriving to take their souls to heaven; 39 people dead.
2002—The Raëlians, who maintain that life on Earth was artificially created by extraterrestrial beings, announce that they have cloned a human being.
2008—Texas Child Protective Services seizes more than 400 children from the Yearning for Zion Ranch, a polygamist property in western Texas; charges of brainwashing and abuse are later found to be unsupported.
2010—Nine members of a Christian Identity group calling themselves the Hutaree are arrested in Michigan for plotting to kill police officers as a means of bringing about the End Time as described in the Book of Revelations.

New religious movements are sometimes called cults. While the word *cult* refers to a religious system of rituals, practices, and the people who adhere to it, the term today often carries a negative connotation of a controlling, distorted, even dangerous religious group. The term *new religious movement* is therefore a more neutral way to refer to a wider phenomenon of emergent religious/spiritual groups. Every religion is at some point new, and NRMs are composed of many different groups with widely divergent perspectives. While some new religious movements can indeed be dangerous to their adherents and to the general public, they are not all so. Nevertheless, until NRMs gain the acceptance of mainstream society, establishing the legitimacy of a new religious movement is often a sketchy proposition.

Who Joins and Why?

New religious movements vary widely in their beliefs and practices; however, such groups often represent alternative worldviews and practices vis-à-vis the mainstream, and they often offer distinct responses to the problems of their day. The answers they provide often seem more adequate to followers than those of the older, established traditions. Given widespread disillusionment with many established religious traditions, whether owing to scandals or to perceived backwardness, NRMs can offer attractive alternatives to the mainstream.

New religious movements in the United States are comprised largely of white middle-class young people—but not exclusively so. Groups recruit from the middle and upper classes. Adherents' families are generally well educated and financially stable. Many are in college or are college educated. They come, in other words, from mainstream society. Nevertheless, people attracted to NRMs are largely dissatisfied with mainstream religion and society, are interested in religious/spiritual matters, and are actively seeking individually and independently for fresh answers to their life questions. Seeking to "find themselves," people attracted to new religious movements want alternatives to the familiar, structured establishment of belief and practice.

It is often the case, too, that the downtrodden or less well-off find satisfaction in the pursuit of new religion. Certainly this is the case among many adherents of the Christian Identity movement, which overlaps in its tenets with radical antigovernmentism, racism, militarism, anti-intellectualism, and other such themes. Rejection of economic disparities similarly plays a part, too, whether formally stated or not, in the beliefs and activities of such groups as the Nation of Islam. And many Rastafarians and followers of Native American Religion are among the most economically challenged peoples in the country, even as they seek solace in rooting themselves in their cultural traditions. (Some observers, in fact, would count these last two faiths as no longer new religions but relatively well-established ones.)

Whatever their economic status, people in search of answers to their personal and social problems will often find complete solutions in new religious movements. The strong community identity these movements typically provide will give a sense of security and stability; the communal cooperation they offer will supply a sense of common goals for life-building; the discipline in practice they usually demand will cultivate a sense of self-mastery and knowledge; and the recruitment and financial activities they sometimes require can serve to build self-esteem.

NRMs and the Courts

While many countries grant their citizens religious freedom, conflicts between religion and the state are inevitable and can become more intense in the case of new religious movements—precisely because they engage in practices that many mainstream secular and religious people may find problematic.

New religious movements are often accused of harming or endangering adherents. Court cases have alleged that these movements inflict psychological and/or physical trauma or death. The practices enumerated include kidnapping, brainwashing, mind control, sexual abuse, alienation, harassment, and threats to families.

Charges of endangerment and violence have also been leveled at the criminal level. The mass murder–suicide in Jonestown is one example. Another well-known example occurred in 1984, when members of Rajneeshpurum near The Dalles, Oregon, sought to poison (via salmonella-laced food) people in the local populace who opposed the

group's presence. In 2008, there were charges that children of members of the polygamist Yearning for Zion Ranch in Texas were being brainwashed and abused—charges that later proved unfounded. And in 2010, members of a Michigan Christian Identity group known as the Hutaree were charged with sedition and other crimes for seeking to overthrow the government.

Another major legal issue for NRMs has to do with their status as religious entities and their financial activities as related to that status. Tax exemption for religions and nonprofit organizations is granted in many countries, the United States included. Here, the question involves whether particular new religious movements qualify as protected religions and the legality of particular financial practices. An important issue raised in court cases is when an NRM becomes a legal religious entity. This is difficult to determine, because these movements are not typically organized according to traditional Western understandings of a religion, nor do they always behave like one. Courts have to discern whether a group is a smokescreen for illegal activities, such as a convenient means to qualify for tax exemption. Some new religious movements are indeed quite wealthy and run businesslike organizations, leading to questions about whether they are legitimate religions.

The Church of Scientology has been under constant scrutiny for this very reason. The church has had trouble with the Internal Revenue Service and was involved in a 10-year legal battle with the Food and Drug Administration over controversial medical practices. It took 48 years for New Zealand to formally recognize (in 2002) the Church of Scientology as a legal religious entity. Although Russia refused to re-register the church as a religion under the country's new laws on religion in 1997, the case was eventually taken to the European Court of Human Rights (*Church of Scientology Moscow v. Russia*), which sided with the church. In its decision of April 7, 2007, the Court found that the church was a religious entity entitled to the freedoms of association and of religion. The Italian Supreme Court ruled in 2000 that, while Scientology is indeed a religion—and therefore tax exempt—its drug-addiction program, Narconon, is not tax exempt. The Charity Commission of England and Wales rejected the church's application to register as a charity (giving it tax exemption like other religious entities registered as charities). Scientology was rejected as a religion, because British law requires a religion to include belief in a Supreme Being that is expressed in worship. Scientology is also involved in legal cases in other countries, such as Germany, where it is not accepted as a legitimate religion and instead is seen as a dangerous cult.

The U.S. Supreme Court ruled in 1989 that Church of Scientology members could not deduct auditing and training courses from their federal income taxes. Such courses, though integral to church membership, and costing thousands of dollars, are payment for services, and not free church contributions. Auditing is the main practice in Scientology for the practitioner to gain control of the mind and achieve the state of Clear. Although the church argued that auditing is a religious practice for achieving enlightenment and

is comparable to the concept of tithing in other religious groups, the Court ruled that auditing is instead like church counseling, medical care, or other kinds of religiously sponsored services.

Other new religious movements have had similar troubles. Reverend Sun Myung Moon, founder of the Unification Church, was convicted by the United States on tax evasion charges prior to the group's recognition as a tax-exempt organization. Pagan and witchcraft groups have, not surprisingly, been challenged on their status as well. While U.S. courts generally recognize such groups as religious, the Supreme Court of Rhode Island revoked the Church of Pan's status, because the church's activities were entirely environmental in focus. In such cases, mainstream religions can also get involved; for legal issues involving new religious movements have implications for all religious groups and their practices.

Recruitment, Financial Practices, and the Business of NRMs

Recruitment and solicitation of funds have been particularly controversial for new religious movements, particularly their common method of public solicitation. Solicitation at airports and other public grounds has been banned in some places, because it is argued that these practices are a public nuisance, or even deceptive. For example, ISKCON members were arrested in 1987 in West Virginia for allegedly soliciting money for their community under the false pretense of feeding the poor.

Critics of NRM solicitation practices argue that groups use deceptive practices like misleading donors and recruits on how the money is spent, who the specific group is, or what membership entails. Nevertheless, new religious movements do not have the forum that established religions have for gathering members and funds. Thus, public solicitation is often the most efficient way of getting the message out. Other groups organize side projects and products, establishing quasi-businesses; selling paraphernalia, vitamins, or self-help books; offering cheap labor; designing Web sites; and so on. These practices are necessary for survival, but they also lead to questions of authenticity, legitimacy, and legality.

While some NRMs deny the material world and the accumulation of wealth (for themselves and their adherents), others either embrace it or at least teach that both are possible. Thus, some new religious movements have been extremely successful in gaining financial capital. One way to do this is by targeting mainstream businesses. Through workshops, special seminars, and self-help books, some NRMs have found success targeting business professionals.

Organizations that offer seminars to train businesspeople have proliferated since the 1970s. These training seminars teach businesspeople techniques of management, developed out of their own beliefs, methods, and practices. For example, the World Institute of Scientology Enterprises offers programs for businesses, teaching them management practices developed from Scientology founder, L. Ron Hubbard; the Osho movement,

founded by Bhagwan Shree Rajneesh, offers Results Seminars; and Maharishi Mahesh Yogi's Transcendental Meditation offers master's degrees in business administration at its Maharishi University of Management.

New religious movements also recruit from among the general public. The Church of Scientology offers personality, stress, and IQ tests. Marketed products, Internet sites, and self-help books are all ways that individuals can take advantage of the offerings of NRMs. Through all of these, the exploration and experimentation in the self allows new religious movements to spread their message and grow.

Seeking prosperity for oneself and one's organization seems counter to the traditional notion of religions as not-for-profit and on individual disciples focusing on their own inner spiritual life. Yet many groups who support these kinds of business practices focus on the holism of life. If the divine is in all things, the material world is not in distinction from the spiritual world. Thus, self-empowerment leads to life empowerment, which leads to financial empowerment.

NRMs versus Sects

Overlapping with the concept of new religious movements is the concept of sects. The latter type of organization is generally seen as an offshoot of an established religion. In some cases, however, it is debatable whether a group is best viewed as a sect or as a distinctly new and different take on an old set of beliefs. For example, in the United States, among the fastest growing religious groups are churches belonging to a version of Pentecostalism that devote themselves to the so-called doctrine of prosperity. This doctrine claims that God provides material wealth to those he favors. Thus, by accruing money and worldly goods, the believer demonstrates the he or she is among the select. Beginning in the mid-20th century under a comparatively mild-mannered version promoted by Oral Roberts, and then extending into a range of popular televangelist programs in the latter part of the century, the prosperity gospel has since become a profitable industry for those who oversee it (primarily, the pastors of mega-churches and their media enterprises). The issue has become contentious enough that, at the end of 2007, Senator Charles Grassley opened a congressional investigation targeting a number of high-profile wealth gospel preachers. (As of mid-2010, the investigation remains open.)

Conclusion

As movements grow and organize themselves, they naturally seek to attract followers, sustain themselves, and increase their influence. This requires that new religious movements finance the spread of their message. Thus, charges of financial impropriety and exploitation of vulnerable people who are seeking alternatives in their lives are inevitable. To combat these charges, NRMs must prove that they are legitimate. To do so, they often point to experiential proof, revelation, and ancient wisdom in establishing their legitimacy. While new religious movements proliferate, they often rise and fall fairly quickly.

Only time will tell whether the new religions of today will become the mainstream religions of tomorrow.

See also **Creationism, Intelligent Design, and Evolution; Religious Symbols on Government Property; Racial, National Origin, and Religion Profiling (vol. 2); Right-Wing Extremism (vol. 2); Deep Ecology and Radical Environmentalism (vol. 4)**

Further Reading

Ashcraft, W. Michael, and Dereck Daschke, eds., *New Religious Movements: A Documentary Reader.* New York: New York University Press, 2005.

Clarke, Peter, *New Religions in Global Perspective.* New York: Routledge, 2006.

Cowan, Douglas E., *Cults and New Religions: A Brief History.* New York: Oxford University Press, 2008.

Dawson, Lorne L., *Comprehending Cults: The Sociology of New Religious Movements.* New York: Oxford University Press, 2006.

Gallagher, Eugene V., *The New Religious Movements Experience in America.* Westport, CT: Greenwood Press, 2004.

Gallagher, Eugene V., and W. Michael Ashcraft, eds., *Introduction to New and Alternative Religions in America.* Westport, CT: Greenwood Press, 2006.

Lewis, James R., *Legitimating New Religions.* New Brunswick, NJ: Rutgers University Press, 2003.

Partridge, Christopher, *New Religions: A Guide: New Religious Movements, Sects and Alternative Spiritualities.* New York: Oxford University Press, 2004.

Saliba, John, *Understanding New Religious Movements,* 2d ed. Walnut Creek, CA: AltaMira Press, 2003.

Wilson, Bryan, and Jamie Cresswell, eds., *New Religious Movements: Challenge and Response.* New York: Routledge, 1999.

NO CHILD LEFT BEHIND (NCLB)

Linda Mabry

No Child Left Behind—these words convey an inspiring idea, an admirable goal for reform, and a shared value of universal access to high-quality education. As a national education policy adopted in 2002, No Child Left Behind (NCLB) aims at societal transformation by freeing historically underserved students from what supporters often call "the mediocrity of low expectations," demanding that public schools educate all students to meet standards. Accomplishment of this aim might finally resolve an argument that animated the Continental Congress that produced the Declaration of Independence—whether a government of the people, by the people, and for the people can be sustained in a population not fully literate, not fully educated—by educating everyone.

Yet NCLB has inspired more controversy than any previous educational policy in the United States. To grasp the arguments and to contextualize them historically, three questions will be explored:

1. Is 40 years of federal education policy, culminating in NCLB, more accurately described as *assisting and improving* public schooling in much-needed ways or as *hostile and harmful* incursions into the Constitution's reservation to the states of the provision of public education?
2. Are unintended *consequences* of NCLB-mandated testing outweighing planned or actual *benefits*?
3. Is test-driven accountability *rescuing* schools and students from intolerably low expectations or *abandoning* them and the enterprise of public education?

The explosion of test-related legislation and litigation and some invisible but inevitable problems of educational measurement will thread this discussion of assessment-related aspects of NCLB.

Federal Assistance or Constitutional Incursion?

Despite the Constitution's reservation of public education to the states, federal interest is nonetheless clear. In a democracy where it is the right and responsibility of all members to participate in decision making, education is fundamental to ensuring the electorate's capacity for comprehending complicated issues, seeking salient information and judging its accuracy, and comparing the campaign promises of elected representatives with their performance. Problems associated with state-level failure to make satisfactory education available to all were illustrated a half-century ago in the class action suit, *Brown v. Board of Education of Topeka, Kansas,* 1954. The persistence of efforts to include and exclude evolution from science curricula suggest continuing problems associated with the local level.

All three branches of the federal government have, in fact, played a role in public education. *Brown* and later cases demonstrate the role of the federal judiciary. The executive and legislative branches became active a decade after *Brown* with the Elementary and Secondary Education Act (ESEA) of 1965. Part of President Lyndon Johnson's "war on poverty," ESEA's centerpiece was Title I funding to assist disadvantaged students. In 1988, as the numbers and categories of these students grew, testing was introduced to monitor their progress and assure that federal funds were well spent. The 1994 reauthorization of ESEA, called the Improving America's Schools Act or Goals 2000, called for development of national standards and standards-aligned assessments for all students, tasks set for two bodies created by the same legislation—the National Council on Education Standards and Testing and the National Assessment Governing Board.

Eight years later, in 2002, as ESEA was again reauthorized, this time as NCLB, Goals 2000's six national goals remained unmet or unmeasurable—(1) all children ready to learn; (2) 90 percent high school graduation rate; (3) all children competent in core

subjects (including arts and foreign languages); (4) United States ranked first in the world in math and science; (5) every adult literate and competitive in the work force; and (6) safe, disciplined, drug-free schools. Only 19 states had reached full compliance with the law; no national system of assessments had been created; the effort to calibrate state tests so that their scores could be compared had been abandoned; and neither national content standards nor opportunity-to-learn standards had been developed. Performance standards on the National Assessment of Educational Progress (NAEP) had been set, but the standard-setting process was found "fatally flawed" in multiple evaluations. Most states had adopted content standards, and, ultimately, to comply with NCLB, every state except Iowa had implemented standards-based assessments.

NCLB mandated reading and math proficiency by all students in grades three through eight within 12 years, to be measured by states' standards-based tests and confirmed by the state's NAEP scores; state participation in NAEP, previously voluntary, was required. State test scores were to be disaggregated for each of several subgroups of students identified by major racial and ethnic backgrounds, by disability, and by limited English proficiency, and each group was required to meet state proficiency standards. State improvement plans, including Adequate Yearly Progress (AYP) targets leading to 100 percent proficiency in 2014, were required to be submitted for U.S. Department of Education approval, the first time in January 2003.

The federal government could not compel states to attempt to meet NCLB requirements. Rather, the financial reward of choosing to participate in NCLB—the proverbial carrot—was continuation of the federal funding, an estimated 10 percent of most state education budgets, to which their struggling students had been declared "entitled" 40 years earlier by ESEA. The corresponding stick was a graduated series of penalties increasing in number and severity over time. Schools failing to meet student achievement goals have been identified as needing improvement and are required to do the following:

- In year two following NCLB implementation, develop an improvement plan, accept technical assistance, and make school choice available to any student in a school "in need of improvement" with the district paying transportation to the chosen school.
- In year three, all of the above plus provide approved supplemental services.
- In year four, all of the above plus take corrective action, such as hiring a new staff or adopting a new curriculum.
- In year five, restructure or face takeover by the state or a contractor.

Some saw these provisions as holding schools appropriately accountable for the educational outcomes of vulnerable students, giving the law teeth. Others saw them as threats to compel top-down change, which researchers had repeatedly found to be a hopeless reform trajectory.

A variety of reactions followed enactment of NCLB. Some reactions suggested NCLB was oppressive. Initially, Vermont declared that it would forego federal funding and accountability but later reversed this decision. In subsequent years, other states also considered and rejected opting out, but some did entertain legislation that allowed districts and schools to do so. The numbers of districts and schools that opted out grew.

A variety of reactions was also apparent in the first-round state improvement plans submitted in 2003 for federal approval. More differentiated than the federal government had expected, these plans prompted the first in a series of adjustments to requirements.

With such a multiplicity of responses, perhaps NCLB might be considered in terms of a multiple-choice item. For example, NCLB is best described as:

1. representing President George W. Bush's attempt to achieve ESEA's original hope of equal outcomes for all students.
2. furthering preexisting state trends toward testing and accountability and expanding on a national scale the Texas system instituted when Bush was governor, which produced (select one) the Texas miracle/the myth of the Texas miracle.
3. a violation of the U.S. Constitution.
4. imposing on states, districts, and schools a test-driven educational accountability system with severe penalties for compliance failures.
5. ensuring the failure of public education by setting unrealistic requirements for reading and math proficiency by all students in grades three through eight.

Or perhaps, since the right answer might depend on who was scoring this item, an essay question might be better. For example,

Is NCLB more about entitling students and improving their schools or threatening and punishing both?

Such a question can be taken as a frame for understanding the educational testing and accountability debates intensified by NCLB. The history of educational measurement has been dubbed a history of unintended consequences, to which some consider that Bush has contributed with NCLB. Bush himself described the policy as "real reform having real results" in a press conference December 20, 2004. Whether NCLB's results are positive or negative and, if the former, whether the gain is worth the pain are at issue.

Good Policy, Bad Effects?

Conflicting opinions exist not only among people but also within people. For example, in a small school district in January 2005, an assistant superintendent described NCLB to the author as "the moon shot in education. We might as well go for a big goal. We're

Federal Standards and Accountability Legislation Leading to the No Child Left Behind Act

	STANDARDS			ASSESSMENT			SANCTIONS		
	Standards Established	Deadline for Proficiency	Disaggregation of Performance	State Testing	High-Stakes National	Adequate Yearly Progress	Planned School Improvements	Restructuring of Schools	Public School Choice
Reagan administration/ George H. W. Bush administration (1981–1992)	Yes, voluntary standards	No	No	No	Proposed, NAEP as benchmark (not passed)	No	No	No	Proposed, tuition tax credits and Title I vouchers (not passed)
103rd Congress (1993–1994)	Yes, for Title I students	No	No	Yes, three tests between grades 3 and 12	No	Yes, but vague	Yes	No	No
106th Congress (1999–2000)	Proposed, for all students (only passed the House)	Proposed ten years (only passed the House)	Proposed (only passed the House)	Yes, three tests	Proposed, voluntary (implementation banned)	Proposed (only passed the House)	Proposed (only passed the House)	Proposed (only passed the House)	Proposed, (not passed)
George W. Bush presidential campaign (2000)	Yes	No	Partial	Yes, annual tests for grades 3–8	Yes, NAEP as benchmark	Yes	Yes	Yes	Yes
No Child Left Behind Act (2001)	Yes, mandatory for all students	Yes, 12 years	Yes, by race/ ethnicity, LEP, disability, and Title I students	Yes, annual tests for grades 3–8, one in 10–12	Partial, NAEP required but not linked to funding	Yes	Yes	Yes	Partial, plus supplemental services vouchers

Figure 1. Federal Standards and Accountability Legislation Leading to the No Child Left Behind Act (Adapted from Andrew Rudalevige, *The Politics of No Child Left Behind* [2003], http://educationnext.org/the-politics-of-no-child-left-behind)

going to be better for having tried." By the end of the school year, however, she was saying:

> I think [the law] has been both positive and vexing—positive in that it really has forced us to look carefully at what students are learning, especially those who are not yet learning to any standard this state considers appropriate. At the same time, it's been really vexing because, although we have put into place things that really help students and teachers, we don't know how we can keep on.…I don't know if people are ultimately going to love me or curse me for this, but I've said I think it's time to take Title 1 dollars off the table. We did refuse it for two years, but we need the money, frankly.

Even the positive aspects can be vexing, as discussion of the following points will show: (1) Rising scores come with significant caveats, and evidence that they provide of school improvement does not always survive scrutiny. (2) While states develop their own improvement plans, the federal approval process limits their real options. (3) NCLB's wording protects districts and schools from new expenditures, but complaints and lawsuits charge that it is nonetheless an unfunded mandate.

Test Score Increases

There have been reports that scores on state reading and math achievement tests for students in grades three through eight are rising across the country. To NCLB proponents, this indicates that the bottom-line objectives are being attained, that reform is working. Although achievement gaps persist, test scores also offer evidence that some of the students who have been left behind in the past are beginning to catch up. NCLB promoted the credibility of the score increases by blocking some possibilities for gaming the system and thereby distorting test results, problems that had been reported with state tests:

- By requiring testing every student in grades three through eight every year, NCLB facilitated individual student progress monitoring. No longer was it necessary to compare fourth-graders in year one with fourth-graders in year two, a completely different student population.
- By requiring 95 percent student participation rates, NCLB diminished the possibility of skewing results by such manipulations as scheduling field trips for low-scoring students on test days, calling them to the school office, or suggesting their parents keep them home.
- By requiring comparison of each state's test scores to its scores on NAEP, NCLB checked any "dumbing down" of state tests that might raise scores by lowering expectations.

Even if tests remain imperfect, as test developers themselves acknowledge, few critics would argue that scores reveal nothing. Love tests or hate them, trust scores or harbor

lingering doubts about their accuracy and meaning, not even the most acerbic critic can regret evidence from scores of improving educational outcomes for children and youth.

Cautions

Across time, student socioeconomic status has been so strongly and consistently correlated with test scores that it has been argued that zip codes, identifying the affluence of neighborhoods, tell as much about student performance as large-scale assessments do. It has even been joked that a high school senior's college performance can be better predicted by the number of cavities in his or her teeth than by the student's score on a college entrance examination, a whimsical allusion to the dental care available to the affluent. The correlation suggests that accountability based on test scores amounts, in effect, to holding students accountable for their parents' income and holding public schools, which must accept all the students in their catchment areas, accountable for factors beyond their control.

While state scores are rising, the NCLB requirement to compare each state's test scores to its NAEP scores is often failing to confirm reported state gains. For example, according to a 2006 *New York Times* investigation, NAEP math scores between 2002 and 2005 improved for poor, African American, and white fourth-graders, but NAEP reading scores declined slightly for African American and white eighth-graders and for eighth-graders eligible for free or reduced-price lunches. Mississippi declared 89 percent of its fourth-graders proficient readers, the highest percentage in the nation, but only 18 percent proved proficient in reading on NAEP.

The discrepancy signals invalidity. Because NAEP scores are less easily corrupted than scores on state tests, the discrepancy suggests that the invalidity is located in state testing—not for the first time. In the 1980s, the credibility of state test scores was called into question when a West Virginia physician, John J. Cannell, discovered that every state was claiming above-average scores, ushering into the measurement vernacular the "Lake Wobegon phenomenon," a reference to the fictitious community imagined by Garrison Keillor, where "all the children are above average." In the 1990s, Tom Haladyna and his colleagues found tests susceptible to a variety of types of "score pollution." In 2000, Center for Research on Educational Standards and Student Testing codirector Bob Linn showed that scores typically rise after a new test is implemented and typically return to original levels when the second test takes its place, suggesting that it is common for rising scores to exaggerate rising achievement. And in 2009, it was discovered through an investigation that school officials in Georgia were routinely correcting standardized tests submitted by students in order not to be penalized for poor performance and thus face the withdrawal of federal funds from their districts.

That the achievement gains suggested by rising scores may be an illusion is underscored by the fact that NAEP scores have remained fairly stable for 40 years. Flat NAEP scores also suggest that NCLB requirements are unrealistic. Many doubt that all third- through eighth-graders could achieve proficiency in literacy and numeracy. Assuming

they could, Stanford University measurement expert Ed Haertel has calculated that the states with the best NAEP progress records would nevertheless need more than 100 years to reach 100 percent proficiency, not NCLB's 12 years.

Some of the cautions applicable to interpreting satisfactory progress toward NCLB requirements are technical. For example, while NCLB has stimulated high student participation in test-taking, it has also allowed each state to determine how many students in each subgroup (e.g., English language learners, special education students) must be enrolled for their scores to count in determining whether AYP targets have been met. States have set different minimum numbers of students in subgroups, which has proven problematic whether the minima are high or low. With a "low *n,*" aggregated scores will be inconsistent (unreliable) from year to year, showing too much variability to tell whether progress is being made. With a "high *n,*" the scores of students in the subgroup will not count toward AYP targets, making it impossible to tell whether these students are making progress or whether they are being left behind. There is no consensus about the right minimum number.

The *status models,* which have been federally approved for most states, base accountability on whether students reach a prescribed target or proficiency status, operationally defined as a cut-score on a test. Status models create uneven playing fields where students performing at lower levels than their age-mates—and the schools that serve them—have to make more progress to reach the required status. Alternatively, *growth models* have been developed, which compare a student's test performance in one year with his or her scores in succeeding years. Growth models permit measuring a student's improvement across time and the impact of the schooling the student has experienced. Yet, the U.S. Department of Education has approved only a few state requests to use growth models and only on a trial basis. As a result, in most states, poor students and their schools could be making greater progress than the more affluent, yet be judged as needing improvement in comparison with wealthier counterparts whom they have outperformed in terms of growth. President Barack Obama's Race to the Top program, in which states compete for federal monies based on a variety of criteria (including "turning around the lowest-achieving schools" and having "great teachers and leaders"), is meant to address some of NCLB's shortcomings.

School Improvements

In 2001, the Education Trust, a Washington, DC, policy group, listed 1,320 "high-flying schools" across the country in which half of the students were poor and half minority, yet scoring in their states' top thirds. Hope rose even faster than the reported score increases until researchers investigated the claims, which were based on single-subject gains, in single subjects, in single years. When Douglas at Harris Florida State University checked to see how many had made gains in two subjects, at two grade levels, over two years, all but 23 of the high-flying schools were grounded.

Researchers with the Civil Rights Project at Harvard University determined that the states reporting the biggest gains were those with the lowest expectations, that experienced teachers were transferring out of low-income minority schools, and that no significant headway had been made in closing the gap for minority and poor children since the 1970s–1980s with civil rights and antipoverty initiatives. Moreover, project researchers found that schools identified as needing improvement tended to enroll low-income students, to be racially segregated, and to fail to make the needed improvements. In a Hispanic P–5 school in Texas in 2005, Jennifer Booher-Jennings documented "educational triage," in which the overwhelming majority of instructional resources were concentrated on the "accountable kids," whose scores would figure in AYP determinations, and the "bubble kids," whose scores were near passing, at the expense of all others.

NCLB's assumption that educational accountability systems based on standards and standards-based tests will improve education has been tested independently. In 1996, the Pew Charitable Trusts awarded four-year grants to seven urban school districts to assist them in implementing standards-based reform. Five years later, as NCLB was nearing enactment, the Trusts reported that high-stakes accountability motivates educators to avoid penalties by raising test scores through less ambitious teaching, especially for low-performing students, and that emphasis on testing comes at the expense of curriculum, instruction, and professional development and prevents real improvement in student achievement. This comparison suggests that NCLB's logic was flawed from the start.

Saving or Abandoning Students and Public Education?

Options

States may refuse NCLB requirements and federal funding, although most, like Vermont, found they could not afford to do so. And NCLB came with a local price tag. Connecticut found itself facing $8 million in increased expenditures by 2008 related to NCLB and filed suit against NCLB's own prohibition against unfunded mandates, as did a Michigan school district and the National Education Association. Despite increased federal funding related to NCLB, such as grants to develop smaller learning communities in large high schools, NCLB has drained state and district coffers, whether through increased data collection, analysis, and reporting or through legal expenses.

Players

The special education impact has been problematic in two ways. One was exemplified by the lawsuit filed by two Illinois districts on the basis of conflicts between NCLB and the federal Individuals with Disabilities Education Act. The other has been the difficulty in raising the scores of students eligible for special services, a task so daunting that it became common knowledge in Washington that every district in the state not meeting the first AYP targets had failed on the basis of their special education subgroup. While some

adjustments to the law have been made, this difficulty was predictable by educators, but they were left behind in the policy-making process.

Also left behind, according to an analysis of the policy-making process for one part of NCLB, the *Reading First* provisions, were professional education and educational measurement organizations, which have worked to provide policy analyses, conduct research on policy impact, and issue public statements. Commercial interests were not left behind, as witnessed by the recent furor over the U.S. Department of Education's narrowing of approved options regarding curricula and supplementary materials and also by this parody: No Psychometrician Left Unemployed.

As the 1990s' shift toward state legislation focused on tests rather than curriculum and professional development, NCLB has operated on an implicit theory of action that educators and students—the least powerful players in the system—would work harder if coerced. The results to date suggest that coercion may raise scores without raising achievement and may not close achievement gaps.

Reauthorization

Evidence suggests that schools categorized as needing improvement cannot bring all students to proficiency and are closed, that experienced teachers are leaving these schools behind, and promising students who want to transfer out of them outnumber the seats available in "high-flying schools." With the 2007 reauthorization of ESEA, consideration should have been given to the logical conclusion of these trends: NCLB might well leave public education behind. Nevertheless, the process of reforming it has already begun—in the guise of Race to the Top and other measures. To date, at least 27 states have adopted new national standards in English and math based, in part, on Race to the Top recommendations (Lewin 2010).

See also **Government Role in Schooling; Standardized Testing**

Further Reading

Abernathy, Scott Franklin, *No Child Left Behind and the Public Schools.* Ann Arbor: University of Michigan Press, 2007.

Bamberger, Michael J., Jim Rugh, and Linda Mabry, *RealWorld Evaluation: Working under Budget, Time, Data, and Political Constraints.* Thousand Oaks, CA: Sage, 2006.

Booher-Jennings, J., "Below the Bubble: 'Educational Triage' and the Texas Accountability System." *American Educational Research Journal* 42 (2005): 231–268.

Hayes, William, *No Child Left Behind: Past, Present, and Future.* Lanham, MD: Rowman & Littlefield, 2008.

Lewin, Tamar, "Many States Adopt National Standards for Their Schools. *New York Times* (July 21, 2010).

Linn, R. L., "Assessments and Accountability." *Educational Researcher* 29 (2000): 4–16.

Linn, R. L., E. L. Baker, and D. W. Betebenner, "Accountability Systems: Implications of Requirements of the No Child Left Behind Act of 2001." *Educational Researcher* 31 (2002): 3–16.

Ravitch, Diane, *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education.* New York: Basic Books, 2010.

Rebell, Michael A., and Jessica R. Wolff, eds., *NCLB at the Crossroads: Reexamining the Federal Effort To Close the Achievement Gap.* New York: Teachers College Press, 2009.

Reese, William J., *America's Public Schools: From the Common School to "No Child Left Behind."* Baltimore: Johns Hopkins University Press, 2005.

Sadovnik, Alan R., et al., eds., *No Child Left Behind and the Reduction of the Achievement Gap: Sociological Perspectives on Federal Educational Policy.* New York: Routledge, 2008.

Vinovskis, Maris, *From a Nation at Risk to No Child Left Behind: National Education Goals and the Creation of Federal Education Policy.* New York: Teachers College Press, 2009.

NUTRITION IN SCHOOLS

Ann Cooper and Lisa M. Holmes

The percentage of obese children in the United States today has more than doubled since 1970. More than 35 percent of the nation's children are overweight, 25 percent are obese, and 14 percent have type 2 diabetes, a condition previously seen primarily in adults. At the dawn of the 21st century, the Centers for Disease Control (CDC) reported that, of the children born in 2000, roughly one-third of all whites and half of all Hispanics and African Americans will develop diabetes in their lifetimes—most before they graduate from high school. At this rate, the CDC also reports, this group will be the first generation in U.S. history to die at a younger age than their parents. Processed foods favored by schools and busy moms for their convenience not only contribute to obesity; they also contain additives and preservatives and are tainted with herbicide and pesticide residues that are believed to cause a variety of illnesses, including cancer. In fact, current research shows that 40 percent of all cancers are attributable to diet. Many hundreds of thousands of Americans die of diet-related illness each year. People in the United States today simply do not know how to eat properly, and they do not seem to have time to figure out how, so fast food, home meal replacements, and processed foods take the place of good, healthy cooking.

Parents, pediatricians, and school administrators are increasingly concerned about children's health as it relates to diet. Most parents do not know what constitutes good childhood nutrition, and many feel they lack the time they would need to spend researching it. They rely, instead, on the United States Department of Agriculture (USDA)–approved National School Lunch program to provide their children with nutritionally balanced, healthful meals. The trouble is, the program alone cannot and is not doing so. While most schools continue to try to meet better nutritional guidelines, they are still not measuring up, and many are actually contributing to the crisis emerging over the last

decade. Food is not respected; rather, it is something that must be made and consumed with increasing speed. In part, this is the result of the fact that there are more children than ever in schools with smaller cafeterias (often actually multipurpose rooms), forcing several short lunch shifts. Decreasing budgets, in many cases, have caused a decline in the quality of school meals.

For the most part, school lunch has deteriorated to institutional-style mayhem. Walk through the kitchen or lunchroom of almost any public or private school and "fast food nation" will ring with striking clarity. USDA-approved portions of processed foods are haphazardly dished out by harried cafeteria workers to frenzied students hurrying to finish their food in time for 10 minutes of recess. Nothing about the experience of being in a school cafeteria is calm—the din is deafening. Lunchrooms are vast open spaces filled with long tables flanked by dozens of chairs. There is no intimacy, no sense of calm, no respite from a morning of hard learning.

The noise and activity levels are not the only unpalatable aspects of lunchroom dining. A full 78 percent of the schools in the United States do not meet the USDA's nutritional guidelines, which is no surprise considering the fact that most schools keep the cost of the food for lunch under $1 per child. Also not surprisingly, children do not like the foods that are being served. A recent survey of local school children in northern Minnesota revealed the food is so abysmal that not even old standby favorites like cafeteria pizza and macaroni and cheese were given high marks. It is no wonder that kids are choosing fast foods, which are chemically engineered in many cases to be better tasting, over regular school lunch menu items. Children today are bombarded with food advertising that is reinforced by the careful placement of fast food chains in strip malls, nearby schools, and even on public school campuses. The big fast food chains have been aggressively and specifically targeting children for decades—they have even found ways to get inside schools and be part of the public school lunch menus. A mother from Aurora, Colorado, told the present authors that there is one Taco Bell and one Pizza Hut option available on every menu in her six-year-old son's lunchroom. She was told that the fast food program originally started as a "safety measure" to keep the high school and middle school students on school grounds, because, despite the fact that they had a closed campus, students were crossing busy streets to get to fast food restaurants near their schools. She thought "the fast food thing just trickled down to the elementary program." Of course the reality is that those schools were, and are, making money from million-dollar multiyear contracts with fast food companies.

School lunch menus have undergone some changes in recent years and are marginally improved, but nearly all schools continue to operate under the misguided notion that children prefer to eat frozen, processed, fried, sugary foods. Because most parents do not have time to spend in the kitchen the way the parents of generations past once did, the lunch lessons children are getting in school are the primary guideposts available to them. Poor in-school health and nutrition education is causing children and, by

extension, their families to make bad food choices that are translating directly into big health problems—over $200 billion in health problems annually, in fact. Today, many parents, administrators, and concerned citizens are fighting to get fast food out of the nation's lunchrooms and improve the quality of school lunches from nutritional content all the way to the atmosphere in cafeterias. They believe that the tax money allocated to fund school lunches, which totals about $7 billion annually ($3 billion less than what was spent per month on the Iraq War), should be put to better use.

History of School Lunch

Most people assume that the school lunch program is a modern U.S. initiative. Not so. The very first school lunch program was started in Europe in the 1700s after teachers noticed that poor, malnourished children were having more difficulty concentrating than their well-fed classmates. Even more than three centuries ago, the ill effects of poor nutrition on health and education were so abundantly clear that they could not be ignored. The earliest programs were funded through the efforts of private charities with the humble goal of providing the most nutritious meals at the lowest possible cost—hallmarks that remain part of school lunch programs around the world today. When philanthropies could no longer support the needs of their communities, local and national governments stepped in to help. Parents were relieved to know that not only were their children being fed, but school attendance was soaring. At the same time, governments were able to almost guarantee themselves a larger number of healthier men to enlist in the armed services. From the beginning, the primary motivating factors behind school food programs were both charitable and political. The first U.S. school food programs, which started decades later, were no exception to this rule.

Major cities were among the first to put school food programs in place. Ellen H. Richards, home economics pioneer and the first woman admitted to the Massachusetts Institute of Technology (MIT), was a strong proponent not only for school meals but also for in-school nutrition education. During her tenure at as a professor at MIT, Richards spearheaded an effort to establish a Women's Laboratory and was successful in persuading the Women's Education Association of Boston to provide funding. Out of her work at the Women's Laboratory, Richards gathered research for several published works, two of which were *The Chemistry of Cooking and Cleaning* (1882; with Marion Talbot) and *Food Materials and Their Adulterations* (1885). In 1890, she helped open the New England Kitchen, whose purpose was to provide nutritious yet inexpensive food to working-class families in Boston while teaching them the principles of producing healthy, low-cost meals. Four years later, the Boston School Committee began receiving meals from the New England Kitchen, and Richards had almost single-handedly laid the foundation for a model of what was to eventually become the National School Lunch Program.

Philadelphia's first penny lunch program, organized and run by a private charity, also began in 1894, and its most significant contribution to today's school lunch program was the creation of the Lunch Committee of the Home and School League, the precursor to the modern-day Parent Teacher Association (PTA), which was instrumental in expanding the lunch program to nine other area schools.

About a decade later, in New York, Robert Hunter published *Poverty,* in which he made the assertion that between 60,000 and 70,000 children in New York City arrived at school with empty stomachs. It prompted a firestorm of investigative reports, including John Spargo's *The Bitter Cry of the Children,* published in 1906. In his book, Spargo supported Hunter's claims and urged society at large to take action on behalf of the children. Spargo's work in turn spurred further studies by physicians who began publishing reports about the malnutrition of New York City schoolchildren, which later led to a plea from the superintendent of New York City schools, William Maxwell, for a school lunch program where children could purchase healthy low-cost lunches every day. Maxwell's wishes were granted, and two schools were elected to participate in a trial run. Their success was undeniable, and two years later the New York City School Board approved the program and opened the door for a citywide school lunch program overseen by physicians with an eye toward honoring the ethnic and cultural traditions of the various school populations. Not surprisingly, the overall health of New York City's schoolchildren showed improvement very quickly. Ten years later, 17 public schools were participating in the program, and the first food safety measures, which included physical exams for food handlers as well as small pox vaccines, were established. As school lunch programs gained recognition and enjoyed greater successes, they began to pop up in towns and cities all over the country. Before the start of World War I, 13 states and Washington, DC, had some type of school food program in place.

As the war began, the school lunch program was expanded, due in no small part to the fact that approximately one-third of all young men attempting to enlist were turned away because of diseases attributable to malnutrition. At that time, the programs were still generally funded and operated by private charities, but when the Great Depression hit in the 1930s, private charities and individuals could no longer support school feeding programs, and hunger in the United States became more widespread. It was clear that the federal government would have to step in, both to combat hunger and to create much-needed jobs.

People were hungry, not because there was no food available but because they did not have the money to buy it, and, as a result, U.S. farmers were left with enormous agricultural surpluses and were in danger of losing their farms. In an effort to both assist farmers by purchasing their products and feed needy families and schoolchildren using agricultural surpluses, the Congress passed the Agricultural Act of 1935, Public Law 320, which required the cooperation of federal, state, and local governments to implement and establish a structure upon which future commodity distributions programs were built.

During this time, the Works Progress Administration (WPA) was organized to provide work on public projects to the unemployed, and school lunches were a perfect fit for the program. Not only did WPA workers cook and serve lunches, but they canned the fresh fruits and vegetables provided to them through the surplus program and through school gardens. Until that time, nothing had a greater impact on the National School Lunch Program than the WPA. By 1941, school lunches were being served by the WPA in every state to a total of about 2 million schoolchildren. The program was also responsible for employing more than 64,000 people in school lunch programs at that time. Just one year later, 6 million children were participating.

Unfortunately, with the onset of World War II, the school lunch program took a hit as surpluses were redirected to feed troops, but in 1943, Congress amended the Agricultural Act of 1935 to "provide school districts directly with funds for implementation of their school lunch programs."

At war's end General Lewis Blaine Hershey, director of Selective Services, declared that malnutrition was a national security risk and stated before Congress that the United States had 155,000 war casualties directly related to malnutrition. It became clear that strong federal legislation was necessary, and in the summer of 1946, the National School Lunch Act, Public Law 396, 79th Congress, was signed by President Harry S. Truman. The new law specified permanent funding through the Secretary of Agriculture "to assist with the health of the nation's children, and ensure a market for farmers" (USDA 1946). Section Two of the law states the purpose of the act:

> It is hereby declared to be the policy of Congress, as a measure of national security to safeguard the health and well-being of the Nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food, by assisting the States, through grants-in-aid and other means, in providing an adequate supply of foods and other facilities for the establishment, maintenance, operation, and expansion of nonprofit school lunch programs. (USDA 1946, 231)

With the passing of PL 396, the National School Lunch Program was given an unshakable foundation. The guidelines for administration of school lunch programs under PL 396 include:

1. Lunches must meet minimum nutritional requirements set by the Secretary of Agriculture.
2. Free or reduced-cost meals must be made available to children whom local authorities determine unable to pay.
3. Discrimination against children unable to pay is forbidden.
4. The program must be operated on a nonprofit basis.
5. Foods designated by the secretary as abundant must be utilized.

6. Donated commodity foods must be utilized.
7. Records, receipts, and expenditures must be kept and submitted in a report to the state agency when required.

Funds were also specifically set aside for the purchase of equipment so that money given to schools for food would be used only to purchase food. In 1954, the Special Milk Program was set in place, making surplus milk available to schools in much the same way as other surplus agricultural foods had previously been made part of the program.

Between 1955 and 1966, a decline in nutritional intake was reported by the Household Food Consumption Survey of 1965–1966 and resulted in the Child Nutrition Act of 1966, Public Law 89–642, allowing for increased funding to create programs whose sole purpose was to improve child nutrition. The Special Milk Program became part of the Child Nutrition Act, and through the Child Nutrition Act schools were provided nonfood assistance, which made funds available for the purchase of equipment as long as schools were able to cover 25 percent of their equipment costs. In 1966, a pilot breakfast program was given a two-year test run, and allowances were made for hiring more employees to run the school food programs. It was at this point that all school food programs, including those created for preschool children, were placed under the aegis of one federal agency, standardizing the management of school lunch programs across the country.

In the 1970s, nutritionists began taking a closer look at school meals and criticized the program for not taking into account students of different ages and body types. The same meals were being served to all students—athletes, obese children, undernourished kids, first-graders, and high school students alike. They also looked at sugar and fat content and questioned the general healthfulness of school lunches. It was at this time that nutritionists first began to look to the National School Lunch Program as a tool for educating children about good nutrition, and, in 1979, school districts were required to include children and parents in their school food programs, making them participants in the overall eating experience—from taste tests to menu planning and cafeteria design. After a decade of discussion on the subject of the healthfulness of school meals, new regulations were put in place that, among other things, included a provision that required different portion sizes for children of different age groups.

Also in the 1970s, vending machines made their appearance in public schools. There was some immediate concern on the part of parents and educators about the types of products being sold, and, as a result, the Secretary of Agriculture issued regulations in 1980 restricting the sale of sodas, gum, and certain types of candy. Unfortunately, the regulations were overturned in a 1984 lawsuit brought by the National Soft Drink Association. The judge presiding over the case stated that the Secretary of Agriculture had acted outside the bounds of his authority and was permitted only to regulate food sales

within the cafeteria. So, although they were not allowed in cafeterias, vending machines once again found their way onto public school campuses around the country.

The 1980s were a time of great strain on the school lunch program. The Reagan administration forced budget cuts, causing meal prices to rise and some children to drop out of the program altogether. In an effort to save money and still appear to be meeting the federal guidelines for a healthy school lunch, the government made attempts to add certain foods to the "permissible" list. The one that made the most people sit up and take notice was the shocking allowance of ketchup as a vegetable. Also during the 1980s, many schools were forced to create noncooking kitchens, which, by default, increased the quantity of processed foods being served.

By the time President Bill Clinton took office, the USDA was still falling well short of meeting its own dietary guidelines in the public school system, which was not surprising in a program that for decades had been running on agricultural surpluses like milk, cheese, and high-fat meat products. As a matter of fact, the fat content of school lunches was well above recommended dietary guidelines, and meals were falling well short of students' needed nutrient values. Ellen Haas was appointed as Assistant Secretary of Agriculture in charge of Food and Consumer Affairs, and it became her job to oversee the National School Lunch Program. Haas and Secretary of Agriculture, Mike Espy, held a series of national hearings that were open to both experts and concerned citizens and put together their School Meals Initiative for Healthy Children in the summer of 1994. It required that schools meet USDA Federal Dietary Guidelines by 1998. The directive that an average of 30 percent or less of the week's calorie count come from fat (and only 10 percent from saturated fat) angered the major players in the meat and dairy industries who had been particularly reliant upon the school food program to take their surpluses. Nevertheless, Haas pushed forward, making her School Meals Initiative the first substantial revision to the National School Lunch Program in nearly 50 years. The hallmark of Haas's program was ease of implementation through the reduction of bureaucratic red tape.

Despite the fact that Haas's proposal became a federal mandate in 1994, more than a decade later, schools still struggled to meet its demands. Poultry, soy (incidentally, both tofu and soy milk are not considered part of a reimbursable meal), and a greater variety of fruits and vegetables were designated as permissible by the USDA, but fat content was down by only 4 percent and remained at about 34 percent on average. And while 70 percent of all elementary schools met government mandated nutrient guidelines, only 20 percent of secondary schools had been able to do so. To make matters worse, more snacks were being offered at school than ever before, and fast food chains were inching their way into the school system. Cash-poor schools looked to school snacks and fast food to help raise money for, among other things, extracurricular programs. Today, most schools still have no nutrition curriculum, and those that do use heavily biased educational materials donated by the meat and dairy industries. Students are

being bombarded with an overwhelming amount of extremely persuasive advertising for high-fat, low-nutrient foods every day. In fact, food companies spend approximately $30 billion to underwrite about 40,000 commercials annually. It is nearly impossible for the National School Lunch Program to come out ahead, no matter how nutritious the meals become, if fast foods are among the choices in the lunchroom. When presented at school with a choice between a familiar Taco Bell selection and school cafeteria mystery meat, it is a no-brainer what most students will choose.

School meals reach nearly 27 million children each day; for some, what they eat at school is the most nutritious meal of their day, which is great news. Still, the childhood obesity crisis is at an all-time high. Children are getting fatter and fatter—in fact, nearly 20 percent of all U.S. children are considered obese by today's standards.

Some school districts, like Berkeley Unified School District in Berkeley, California, have found ways to work within the national guidelines while supporting an innovative interdisciplinary gardening and nutrition program that directly involves children in growing and cooking their own food, in conjunction with serving nutritious and delicious food in the cafeterias. Other schools have raised money for salad bars, and many school districts around the country have banned soda and vending machines. Private and charter schools like the Ross School on Long Island and Promise Academy in New York City are creating school food programs that are making their way, in bits and pieces, into the country's federally funded school lunch program. Progress is being made, but it is slow.

In 2006, through the Child Nutrition and WIC Reauthorization Act of 2004, the federal government mandated that each school district form a Wellness Committee and draft a Wellness Policy to establish standards for nutrition and good health in the public school system. The policies were required to address the quality of meals, regularity of exercise, and nutrition education. Unfortunately, there is no real national standard, nor is there any significant funding available to help school food administrators implement their plans. Parents and administrators continue to express their frustration, and educators on the front line continue to ask why the National School Lunch Program is overseen by the U.S. Department of Agriculture, whose primary purpose is to support the nation's farms through subsidy programs that require public schools to utilize high-fat, highly processed foods that are contraindicative to good nutrition. In 2007, at the behest of Congress, a committee made up of experts from the Centers for Disease Control and the Institute of Medicine compiled a comprehensive report on nutrition standards for foods in schools. As of mid-2010, however, most of its recommendations had yet to be acted upon in any systematic way, even while a growing number of individual school districts had instituted measures aimed at improvement.

See also **Government Role in Schooling; Marketing to Children (vol. 1); Genetically Modified Organisms (vol. 4); Obesity (vol. 4)**

Further Reading

Committee on Nutrition Standards for Foods in Schools, *Nutrition Standards for Foods in Schools: Leading the Way toward Healthier Youth.* New York: National Academies Press, 2007.

Cooper, Ann, and Lisa M. Holmes, *Bitter Harvest.* New York: Routledge, 2000.

Cooper, Ann, and Lisa M. Holmes, *Lunch Lessons: Changing the Way We Feed Our Children.* New York: HarperCollins, 2006.

Levine, Susan, *School Lunch Politics: The Surprising History of America's Favorite Welfare Program.* Princeton, NJ: Princeton University Press, 2010.

Pollan, Michael, *The Omnivore's Dilemma: A Natural History of Four Meals.* New York: Penguin Press, 2006.

Poppendieck, Janet, *Free for All: Fixing School Food in America.* Berkeley: University of California Press, 2010.

Schlosser, Eric, *Fast Food Nation.* New York: Harper Perennial, 2005.

USDA, National School Lunch Act, 79 P.L. 396, 60 Stat. 230. 1946.

O

OBSCENITY AND INDECENCY

Gwenyth Jackaway

Areas that have challenged the media's right to freedom of speech have long revolved around issues of human sexuality and expressions and language that violate standards of taste and decency. The history of censoring sexually explicit scenes considered to violate standards of decency goes back to the early days of film. As social mores and community standards have evolved over the years, so too have legal protections and the definition of what is acceptable and what is not on television, radio, and film. The changes in Federal Communications Commission (FCC) policy brought about by the "wardrobe malfunction" that exposed Janet Jackson's breast during her halftime performance with Justin Timberlake at the 2004 Super Bowl illustrate that these topics remain battleground issues for the media.

Obscenity

Given America's Puritan heritage, the long history of debate over the definition of obscenity, and the measures taken to stop it, should come as no surprise. Under British law in the time of the monarchies, sexually explicit writings and images were considered "obscene libel" and were outlawed. When the Puritans left Britain to pursue religious freedom, they brought their codes of sexual modesty and chastity with them. Hundreds of years later, despite the sexual revolution of the 1960s, the United States remains a country in which depictions of nudity and sexuality make many uncomfortable and are frequently met with calls for sanction or censorship. Despite the fact that the First Amendment

provides for the separation of church and state, this is one area in which religious beliefs about sexuality and sin have consistently spilled over into the realm of law.

Throughout the 19th and 20th centuries, both the federal and state governments passed laws to stop the flow of material considered to be obscene or indecent. In 1842, Congress passed the first antiobscenity statutes, barring the "importation of all indecent and obscene prints, paintings, lithographs, engravings and transparencies." This statute was amended numerous times to include photographs, films, and phonograph records. The Comstock Act of 1873 made it illegal to use the U.S. postal system to distribute obscenity. At that time, obscenity was defined as material that has a "tendency to deprave and corrupt those whose minds are open to such immoral influences." This broad definition was used by both the U.S. Customs office and U.S. Postal Service to ban such works as Walt Whitman's *Leaves of Grass,* James Joyce's *Ulysses,* and Ernest Hemingway's *For Whom the Bell Tolls.*

With the arrival of cinema in the early 20th century, efforts to stop the flow of erotic imagery in the United States intensified. City and state censorship boards sprung up around the country to prohibit the exhibition of films containing sexually explicit scenes. In 1915, the Supreme Court upheld the practice of these censorship boards, arguing that film was not covered under the First Amendment. This gave the green light to film censorship all over the country. In response, the movie studios banded together in the 1930s to adopt the Hays Code, a set of self-imposed decency standards designed to "clean up" Hollywood and protect the studios from the loss of revenue caused by local censorship. These standards were later abandoned when the Supreme Court reversed its original position on cinema, granting the medium First Amendment protection in 1952.

By the middle of the 20th century, as sexual mores began to change, an increasing number of court cases began to challenge the various antiobscenity statutes around the country. Finally, in a series of rulings, the Supreme Court developed a legal definition for obscenity. Once they had defined this category of speech, they ruled that any form of communication meeting the criteria of obscenity is *not* protected by the First Amendment. This means that federal or state laws banning obscenity do not violate the First Amendment. Because of the great variety of sexual and moral standards throughout the country, the Supreme Court left it up to the states to determine whether, and to what extent, they would ban obscene communication.

Ironically, the issue of obscenity is one of those rare topics that has the power to unite political activists from both ends of the political spectrum. Conservative voters often express concern about obscenity on the basis of the threat that they feel it poses to the family. On the other hand, some liberals are also concerned about obscenity, arguing that pornography contributes to violence against women. Calls for censorship can come from both the right and the left, sometimes on the same issue, even if for very different reasons.

The development of new communication technologies has greatly complicated the issue of obscenity in the United States. In 1957, when first defining obscenity, the

Supreme Court included the "contemporary community standards" clause into the definition in an attempt to take into consideration the reality that sexual and moral standards vary widely by locale. Yet new means of transmitting sexual imagery have rendered this standard difficult to apply. When a small town decides that it does not want pornographic magazines in its local bookstore, residents seeking such material have the option of buying it in a larger city, where fewer restrictions exist. But whose values should determine the national standards regarding "taboo" material for electronic media? The Internet allows for the transmission of explicit imagery to anyone with a computer, regardless of where they live, making it very difficult to set or enforce obscenity or indecency laws governing computer communication. Each time a new communication technology is invented, providing new ways to disseminate controversial content, the national commitment to freedom of speech is tested once again. Given the political and religious diversity in the United States, the continuing development of communication technologies, and the ever-popular nature of sexually explicit media content, the issue of free speech and obscenity is sure to continue challenging future generations of Americans.

Indecency

In addition to concerns about sexually explicit media content, the United States also has a long history of identifying certain words and images as taboo, and therefore off-limits in "polite society." At one time in the nation's history, social convention served as an effective censor of "vulgar" language and gestures, and most people were willing to abide by the unwritten rules of convention. With the many social changes of the late 20th century, these rules, like so many others, were gradually tested. Because both radio and television are regulated by the U.S. government, these channels of communication have been the terrain on which the debate about the boundaries of propriety has taken place.

DEFINING OBSCENITY

The legal definition of obscenity was developed in a series of Supreme Court cases, most notably *Roth v. U.S.*, 1957, and *Miller v. California*, 1974. Currently, in order for a piece of mediated communication to be considered obscene—and therefore lacking First Amendment protection—the following conditions must be met:

1. An average person, applying contemporary local community standards, finds that the work, taken as a whole, appeals to prurient interest. (The legal definition of *prurient interest* is a morbid, degrading, and unhealthy interest in sex, as distinguished from a mere candid interest in sex.)
2. The work depicts in a patently offensive way sexual conduct specifically defined by applicable state law.
3. The work in question lacks serious literary, artistic, political, or scientific value.

The FCC, which sets the rules governing the broadcasting system, has defined indecency as "language or material that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards for the broadcast medium, sexual or excretory organs or activities." Indecent programming contains patently offensive sexual or excretory material that does not rise to the level of obscenity. Because obscenity lacks First Amendment protection, it cannot be broadcast on the public airwaves. Indecent speech, on the other hand, is covered by the First Amendment, and thus cannot be barred from the airwaves entirely. This poses a dilemma: how can a free society balance the rights of adults to consume adult-oriented material with the goal of shielding children from language or imagery that some feel is inappropriate for young audiences?

The solution, as devised by the FCC, in response to several key Supreme Court rulings, is known as the "safe harbor" provision, which prohibits the broadcasting of indecent material between the hours of 6:00 A.M. and 10:00 P.M. Broadcast companies, stations, and on-air personalities violating this rule are subject to fines. Like the laws prohibiting obscenity, rules restricting indecency are inconsistently enforced, with great fluctuations depending upon the political and religious climate predominating in the nation at any particular time. When the nation is in a more conservative period, greater concern is expressed about the transmission of such material.

The fines imposed on broadcasters by the FCC for indecency violations were, at one time, set at a relatively low rate of several thousand dollars per incident and were rarely enforced. This changed significantly following an incident involving singers Janet Jackson and Justin Timberlake, in which Jackson's breast was inadvertently exposed to a national audience watching the CBS television coverage of the halftime performance of the 2004 Super Bowl. In response to the tremendous public outcry about the event, particularly from conservative viewers, Congress and the FCC raised the indecency fines to over 20 times their original level. Viacom, then owners of the CBS network, were fined a record-breaking $550,000 for airing the incident, despite the fact that all parties involved claimed that it had been an accident.

During the same period, shock-jock radio personality Howard Stern, long famous for his off-color language and humor, became a target for public concerns about indecency on the airwaves. Clear Channel Communications, the national radio chain that had carried Stern's syndicated program, dropped him from its program lineup after being charged heavy fines for airing his material. In a move clearly designed to send a strong message, the FCC also issued fines of over half a million dollars to Stern himself for violating restrictions on broadcasting indecency. Some critics at the time argued that the real reason for the strong stand taken against Stern was that the radio personality had begun to use his airtime to criticize President George W. Bush.

Whether it was indecency or politics that turned Stern into a target, it was a new communication technology that provided the "solution." In a development that illustrates the power of new media to allow taboo messages to bypass existing restrictions on

controversial speech, Howard Stern moved from broadcast to satellite radio, which, at the time of this writing, is not governed by content restrictions on indecency.

The Communications Decency Act

The Communications Decency Act attempted to introduce a wide range of broadcasting-type controls on the Internet. When the act passed into law on February 1, 1996, as part of the Telecommunications Reform Act, it met with protest from a broad range of groups promoting freedom of speech, from the American Civil Liberties Union to the Electronic Frontier Foundation (EFF). The EFF launched a blue ribbon campaign calling for Internet users to protest the legislation by displaying the anticensorship blue ribbon on their Web pages.

Critics charged that the Act was one of the most restrictive forms of censorship applied in the United States and that it turned the Internet from one of the most free forums for speech to one of the most tightly regulated. The act made it a crime to knowingly transmit any communication accessible to minors that could be considered "obscene, lewd, lascivious, filthy, or indecent." It also prevented any publicity of abortion services. Publishers of offending material could be prosecuted, and also those who distribute it—Internet service providers. In an attempt to avoid prosecution, they may have had to act as private censors. The penalty was a sentence of up to two years in prison and a $100,000 fine.

By June 1996, a three-judge panel in Philadelphia ruled that the act was unnecessarily broad in its scope, violating constitutional guarantees to freedom of speech. The act also infringed on privacy rights by empowering federal agencies to intervene in, for example, the sending of private e-mail between individuals.

On June 26, 1997, the U.S. Supreme Court agreed with the district court judges that the Communications Decency Act was unconstitutional. The judges pointed out that TV and radio were originally regulated because of the scarcity of frequencies in the broadcast spectrum, which is not true of the Internet. The judges stated that the concern to protect children "does not justify an unnecessarily broad suppression of speech addressed to adults. As we have explained, the Government may not 'reduc[e] the adult population…to…only what is fit for children.'"

After the Communications Decency Act was struck down, new legislation was passed: the Children's Internet Protection Act (CIPA). The federal statute requires Internet blocking of speech that is obscene, or "harmful to minors," in all schools and libraries receiving certain federal funding. CIPA, also known as the Internet Blocking Law, was also challenged. The EFF charged that the law damages the free speech rights of library patrons and Web publishers.

On June 23, 2003, the Supreme Court upheld CIPA. The court found that the use of Internet blocking, also known as filtering, is constitutional because the need for libraries to prevent minors from accessing obscene materials outweighs the free speech rights of

library patrons and Web site publishers. However, many independent research studies show that Internet blocking software is incapable of blocking only the materials required by CIPA. The CIPA law is problematic because speech that is harmful to minors is still legal for adults, and not all library patrons are minors.

Conclusion

Debates regarding obscenity and indecency are so highly charged because they speak to core values and behavioral norms by which various groups and individuals expect or demand others to live. Thus, for instance, gay and lesbian literature, film, and television have often been coded as obscene or indecent when judged from a conservatively heteronormative value system, resulting in parental warnings being attached to programs that in any way mention, much less depict, gay or lesbian sexuality. Even medical terminology remains obscene and indecent to some, especially in media that are available to children. This poses the significant problem to regulators and producers of determining a standard definition of obscenity and indecency and predictably entails outrage and activism on behalf of those who disagree with the standard of the moment.

As the reactions to obscenity and indecency fluctuate, as rules and conventions ebb and flow, and as ever-developing media technologies introduce new battlegrounds, so too will our definitions of what should and should not be said or shown change in the future. Obscenity and indecency are likely to form the substance of many a debate long into the future, as we use media depictions and imagery as the fodder for vigorous discussion over what constitutes appropriate behavior both inside and outside of the media.

See also **Pornography; Shock Jocks, or Rogue Talk Radio; Violence and Media; Sex and Advertising (vol. 1)**

Further Reading

Bernstein, Matthew, *Controlling Hollywood: Censorship and Regulation in the Studio Era.* New Brunswick, NJ: Rutgers University Press, 1999.

Heins, Marjorie, *Not in Front of the Children: "Indecency," Censorship, and the Innocence of Youth.* New York: Hill and Wang, 2001.

Hilliard, Robert L., and Michael C. Keith, *Dirty Discourse: Sex and Indecency in Broadcasting,* 2d ed. Malden, MA: Blackwell, 2007.

Leff, Leonard J., *The Dame in the Kimono: Hollywood, Censorship, and the Production Code.* Lexington: University Press of Kentucky, 2001.

Lipshultz, Jeremy H., *Broadcast Indecency: FCC Regulation and the First Amendment.* Newton, MA: Focus Press, 1997.

Sandler, Kevin, *The Naked Truth: Why Hollywood Does Not Make NC-17 Films.* New Brunswick, NJ: Rutgers University Press, 2006.

Sova, Dawn B., *Forbidden Films: Censorship Histories of 125 Motion Pictures.* New York: Facts on File, 2001.

P

PORNOGRAPHY

Jane Caputi and Casey McCabe

Pornography is defined in the *New Oxford American Dictionary* as "printed or visual material containing the explicit description or display of sexual organs or activity, intended to stimulate erotic rather than aesthetic or emotional feelings." While pornography involving children is widely condemned, it remains a serious international problem. Pornography involving adults, although contentious, is a massive international media industry.

Pornography—from religious, commercial, social, cultural, artistic, feminist, and gay-friendly perspectives—is variously defined, criticized, and defended. While obscenity historically has not been protected under the First Amendment, very little material has been found by the courts to meet the standard for obscenity. The pornography industry is a multibillion-dollar one; novel technologies and media—beginning with the printing press and photography and continuing through film, home video, cable television, the Internet, and digital imaging—historically have worked to expand its reach. Researchers study the impact and effects of pornography on individuals as well as society: who uses pornography and why; how pornography influences attitudes and behaviors, including misogynist attitudes and violence against women; the history of pornography; textual analysis of stories and images; and pornography as a cinematic genre.

Feminists particularly have engaged in wide-ranging debate, with some viewing pornography as a cornerstone industry in promulgating sexist beliefs, actively oppressing women, and exploiting sexuality and others claiming pornography as a potentially

liberatory genre, stressing the importance of maintaining the freedom of sexual imagination. In recent times, sexual and sexually objectifying and violent images, based in pornographic conventions, increasingly pervade mainstream culture, raising further debates as to their impact.

History

Sexually explicit and arousing stories and depictions have from earliest histories been part of human cultures—in erotic contexts as well as, and often simultaneously with, sacred, artistic, folkloric, and political. Modern pornography began to emerge in the 16th century, merging explicit sexual representation with a challenge to some, though not all, traditional moral conventions, for pornography was largely the terrain of male elites and represented their desires and points of view.

In the United States after World War II and spurred on by new sexological research, reproductive technologies, emerging movements for social justice, and the formation of the modern consumer economy, the state began to retreat from some of its efforts toward the regulation of sexuality. This allowed the emergence of the modern pornography industry. *Playboy* was launched in 1953, followed by a number of men's magazines, the large-scale production and dissemination of pornographic film and video, and the burgeoning of the industry through mainstreaming as well as enhancement by new technologies. Since 1957, the Supreme Court has held that obscenity is not protected by the First Amendment. In 1973, the Court gave a three-part means of identifying obscenity, including: Whether the average person, applying contemporary community standards, would find that the work appealing to the prurient interest; whether the work is patently offensive; and whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value. All three conditions must be met for it to be considered obscene.

"I ONLY READ IT FOR THE INTERVIEWS"

In the wake of hard-core pornography, many companies have been remarkably successful selling soft-core, "artistic," or "thinking man's" pornography. Such pornography usually eschews showing the actual act of intercourse in photographic form or close-ups in video form and lays claim to legitimacy by surrounding itself with the nonpornographic. Leading the pack here is *Playboy* magazine, whose interviews with major intellectuals, politicians, and other cultural elites have allowed the infamous excuse for those buying the magazine that "I only read it for the interviews." By avoiding the label of hard-core pornography, moreover, producers of many such images in this vein can also declare that they are merely continuing in the age-old tradition of art's fascination with the nude. As a result, soft-core pornography fills much late-night pay-cable programming, has worked its way down from the top shelf of the magazine rack, and often enjoys mainstream acceptance or at least tolerance.

In the contemporary period, Fortune 500 corporations like AT&T and General Motors now have affiliates that produce pornography, and, although it is difficult to obtain precise data, most researchers conclude that pornography in the United States annually results in profits from $5 billion to $10 billion, if not more, and globally $56 billion or more. Legal actions against pornography have virtually halted, highlighted by a 2005 obscenity case brought by the federal government against Extreme Associates, a production company featured in a 2002 PBS *Frontline* documentary, "American Porn." Extreme Associates has an Internet site for members and also makes films featuring scenes of men degrading, raping, sexually torturing, and murdering women. A U.S. District Court judge dismissed the case. There was no dispute that the materials were obscene. Rather, he found that obscenity laws interfered with the exercise of liberty, privacy, and speech and that the law could not rely upon a commonly accepted moral code or standard to prohibit obscene materials.

Definition and Debates

Pornography is generally associated with deliberately arousing and explicit sexual imagery, which renders it deviant for traditional patriarchal religious orientations that continue to associate sexuality with sin while equating chastity and strictly regulated sexual behavior in heterosexual marriage with goodness.

"Family values" functions as a byword for antipornography patriarchal positions that condemn not only all sexual representations but also women's sexual and reproductive autonomy as well as any nonheterosexual and nonmonogamous sexuality. Some pornography advocates critique this heterosexist morality, identifying themselves as "pro-sex." Others defend pornography by foregrounding it as a First Amendment issue. Both groups tend to defend sexual representations, as well as diverse adult consensual sexual practices, as a form of free speech and expression, as essential to the imagination, as an element of all of the arts, and as a potentially revolutionary force for social change.

Virtually all feminists argue that sexuality must be destigmatized, reconceptualized, and defined in ways that refuse sexist moralities. The association of sexuality with sin is a feature of specifically patriarchal (male-defined and dominating) societies. Such societies control and regulate female sexuality and reproduction, for example, by designating women as the sexual other while men stand in for the generic human; by mandating heterosexuality; and by basing that heterosexuality in supposedly innate gender roles of male dominance and female submission. These societies foster conditions that impose a sexual double standard, selecting some women (associated with men who have some social power) for socially acceptable if inferior status in the male-dominant family, and channel other women, girls, and boys and young men (those without social power or connections) into prostitution and pornography. Patriarchal societies give men, officially or not, far more latitude in sexual behavior, and pornography and prostitution—institutions historically geared to men's desires and needs—are the necessary dark side of

patriarchal marriage and moralistic impositions of sexual modesty. In this way, pornography and conventional morality, though supposedly opposites, actually work hand in glove to assure men's access to women and male domination and female stigmatization and subordination.

Some feminists argue that as sexuality is destigmatized, sex work—including prostitution and pornography—can be modes whereby women can express agency and achieve sexual and fiscal autonomy. Those associated with what is defined affirmatively as queer culture—including gay, lesbian, transgendered, and heterosexual perspectives and practices that challenge conventional roles—often argue that open and free sexual representation is essential to communicate their history and culture and that social opposition to pornography is fundamentally based in opposition to sexual freedom and diversity.

Mainstream cultural critics of pornography point to the ways that contemporary pornography has become increasingly ubiquitous. They argue that pornography damages relationships between persons, producing unrealistic and often oppressive ideas of sex and beauty; that it limits rather than expands the sexual imagination; that it can foster addictive or obsessive responses; and that it increasingly serves as erroneous sex education for children and teenagers.

Antipornography feminists, while opposing censorship, point out that pornography is a historically misogynist institution—one whose very existence signifies that women are dominated. Pornography not only often openly humiliates and degrades women, but it brands women as sex objects in a world where sex itself is considered antithetical to mind or spirit. They contend that mainstream pornography defines sex in sexist ways, normalizing and naturalizing male dominance and female submission and, by virtue of its ocularcentric and voyeuristic base, promotes a fetishistic and objectifying view of the body and the sexual subject.

Andrea Dworkin and Catharine MacKinnon are well known for their radical feminist approach to pornography. In a model Civil-Rights Antipornography Ordinance, they propose an ordinance that would have nothing to do with police action or censorship but would allow complaints and civil suits brought by individual plaintiffs. The ordinance defines pornography in a way that distinguishes it from sexually explicit materials in general. Rather, pornography consists of materials that represent "the graphic, sexually explicit subordination of women" or "men, transsexuals or children used in the place of women." Their extended discussion delineates specific elements—for example, women being put into "postures or positions of sexual submission, servility or display"; "scenarios of degradation, injury, abasement, torture"; and individuals "shown as filthy or inferior, bleeding, bruised, or hurt in a context that makes these conditions sexual." Although several communities passed versions of this law, it was overturned in the courts as a violation of the First Amendment. At the same time, courts have recognized the use of pornography as a tool of sexual harassment that generates a hostile climate for women workers in offices, factories, and other job sites.

Numerous feminists link the practices and underlying themes of pornography to other forms of oppression. For example, Patricia Hill Collins links the style and themes of U.S. pornography to the beliefs and practices associated with white enslavement of Africans and their descendents—including bondage, whipping, and the association of black women and men with animals and hypersexuality.

Uses and Effects

Research has examined the role of mass-mediated pornography in causing harmful or unwanted social effects, including the furtherance of sexism as well as violence against women and/or willingness to tolerate such violence; profiles of those who work in pornography as well as those who enjoy it; and the potentially addictive aspects of pornography.

Research into the uses and effects of pornography has been conducted employing experimental studies, anecdotal evidence from interviews and personal stories, polling, and statistical data asserting connections between the existence or use of pornography and undesirable social phenomena. Two presidential commissions studied the effects of pornography, one beginning in the 1960s and the other in the 1980s. The first concluded that there were no harmful effects; the second concluded that sexually violent and degrading pornography normalized sexist attitudes (e.g., believing that women want to be raped by men) and therefore contributed to actual violence. These conclusions have been subjected to wide-ranging debate, for example, around the validity of information

DID YOU KNOW? CYBERPORNOGRAPHY AND HUMAN INTIMACY

From pornography's early expression in engravings to film and magazines, writing and research designed to understand pornography and its effects on human behavior and sexuality have occupied scholars from the social sciences to the humanities. With the rise of the Internet and the vast cyberporn industry, new questions about human sexuality have occupied researchers trying to explain the motivations and consequences of heavy use of—or even what some characterize as addiction to—online pornography. Pamela Paul and other health researchers have found disturbing consequences for male intimacy in those who are habituated to cyberporn. Many men accustomed to erotic responses from online pornography reported difficulty being aroused without it, even when having sex with their wives or girlfriends. One consequence of cyberporn, then, is a loss of erotic desire during sexual intimacy. Many men reported the need to recall or imitate the acts, behaviors, attitudes, and images of cyberporn in order to achieve sexual gratification, leaving them and their women partners at a loss for creative eroticism, individual expression, and interpersonal connection. Such sensibilities in the age of the Internet need not be unique to gender or sexual preference, and more research on the effects of mediated sexual experience are necessary to understand the complex nature of the relationship between human sexuality and media.

obtained from necessarily contrived laboratory experiments (usually with male students), the difficulty of defining common terms like *degradation,* the unwillingness of people to accurately report their own behavior, the political bias of the researchers, and so on.

Internationally, feminist researchers point out links between pornography and sex trafficking and slavery as well as the use of pornography in conquest, where prostitution is imposed and pornography is made of the subjugated women as well as men. For example, during the war between Serbia and Bosnia-Herzegovina and Croatia, Serbian forces systematically raped women as a tactic of genocide, and these rapes were photographed and videotaped. Sexual torture, photographed and displayed as kind of war pornography, also was practiced by U.S. troops against Iraqi prisoners in the U.S. prison at Abu Ghraib in Iraq in 2003. Subsequently, investigators released photographs of male Iraqis sexually humiliated and tortured by U.S. soldiers. There also were pornographic videos and photographs made of female prisoners, but these have not been released. Feminist activists argue that, in the case of war and forced occupation, pornography regularly is used to bolster the invading forces' morale and to destroy the self-regard of occupied peoples who are used for pornography as well as sex tourism.

Conclusion

Pornography is now openly diffused throughout U.S. society. Not only has it grown enormously as an industry, but, in mainstream imagery, other media outlets use typical pornographic images and themes in advertisements, music videos, and video games and to publicize celebrities and events. Pornography also has become a legitimate topic for academic study and the subject of college classes.

Research shows that more women now use pornography. As part of the feminist project of redefining sexuality, there has been a surge in erotic stories and images aimed at women audiences. Some feminists and those identified with queer communities have begun to produce what they consider to be subversive pornographies that challenge both traditional morality and the conventions of mainstream, sexist pornography—for example, by featuring models who are not conventionally beautiful and by valorizing nontraditional gender roles and nonheterosexist practices; by celebrating the body, sexuality, and pleasure; by acknowledging lesbian, gay, and transgender realities and desires; and by stressing women's sexual desire and agency.

Some applaud this expansion of pornography as reflecting greater sexual autonomy for women as well as a liberalization of social attitudes toward sexuality. Others argue that the mainstreaming of pornography does not produce or reflect freedom, but instead represents a backlash against the women's liberation movement and furthers the commoditization of sexuality—for example, in the ways that young girls are now routinely represented, often fashionably dressed, as sexually available. The system of patriarchal domination has always, one way or another, colonized the erotic. Modern pornography furthers the interests not only of sexism but also capitalism and other forms of domination. Sexuality, conflated with both domination and objectification, can more readily

be channeled into, for example, the desire for consumer goods or the thrill of military conquest.

Visionary feminist thinkers aver that to be truly "pro-sex" we need to be critically "antipornography." Eroticism is humanity's birthright, a force of creativity, necessary to wholeness, and the energy source of art, connection, resistance, and transformation. Patricia Hill Collins urges both women and men to reject pornographic definitions of self and sexuality that are fragmenting, objectifying, or exploitative and instead articulate a goal of "honest bodies," those based in "sexual autonomy and soul, expressiveness, spirituality, sensuality, sexuality, and an expanded notion of the erotic as a life force."

See also **Obscenity and Indecency**

Further Reading

Brison, Susan J., "Torture, or 'Good Old American Pornography.'" *Chronicle Review/ Chronicle of Higher Education* (June 4, 2004): B10–B11.

Caputi, Jane, *The Pornography of Everyday Life* (documentary film). Berkeley Media. 2006. http://www.berkeleymedia.com

Collins, Patricia Hill, *Black Sexual Politics: African Americans, Gender, and the New Racism.* New York: Routledge, 2004.

Cornell, Drucilla, ed., *Feminism and Pornography.* New York: Oxford University Press, 2000.

Dines, Gail, Robert Jensen, and Ann Russo, *Pornography: The Production and Consumption of Inequality.* New York: Routledge, 1998.

Gutfield, G., "The Sex Drive: Men Who Are Hooked on Cyberpornography." *Men's Health* (October 1999): 116–121.

Hilden, Julie, "A Federal Judge Dismisses an Obscenity Prosecution on Privacy Grounds." 2005. http://writ.news.findlaw.com/hilden/20050131.html

Kammeyer, Kenneth C., *A Hypersexual Society: Sexual Discourse, Erotica, and Pornography in America Today.* New York: Palgrave Macmillan, 2008.

MacKinnon, Catharine, *Are Women Human? and Other International Dialogues.* Cambridge, MA: Harvard University Press, 2006.

McNair, Brian, *Mediated Sex: Pornography and Postmodern Culture.* New York: St. Martin's Press, 1996.

Paul, Pamela, *Pornified: How Pornography Is Transforming Our Lives, Our Relationships, and Our Families.* New York: Henry Holt, 2005.

PBS Frontline, *American Porn* (documentary), 2002.

Stark, Christine, and Rebecca Whisnant, eds., *Not for Sale: Feminists Resisting Prostitution and Pornography.* North Melbourne, Victoria: Spinifex Press, 2004.

POVERTY AND PUBLIC ASSISTANCE

Lane Destro

Public assistance programs are meant to relieve the hardships impoverished families experience as well as prevent families from remaining impoverished in the future or

into the following generation. Over 12 percent of Americans—nearly 37 million people—are currently living below the poverty line. Even more Americans have income above the poverty line but still experience difficulties making ends meet. The poverty level for a family of four is just over $20,000 per year; this is roughly the equivalent of two parents each working a full-time, minimum-wage job five days a week for 52 weeks. Before discussing the policies that seek to help impoverished families, we should understand the characteristics of the Americans most likely to be impoverished today.

Families and persons most likely to be impoverished or affected by poverty are the elderly, minorities (especially African American and Latino), children, women, single mothers, young parents, people living in the South, the poorly educated, the unemployed, and those who live in very urban or very rural areas. Particular attention has been paid to the elderly poor in the United States, and programs such as Social Security and Medicare have alleviated a great deal of elderly poverty since their inception. Minorities face numerous challenges to employment and have less access to high-paying jobs, making them more likely to be impoverished than whites. It is important to note, however, that there is a greater absolute number of poor whites than there are poor minorities in the United States; it is a common misconception that most poor families are African American or Latino. Children make up a large percentage of impoverished Americans, because they have no source of personal income and are largely dependent on their parents for support. Women, similar to racial and ethnic minorities, face employment challenges and still make less money dollar-for-dollar than do men in comparable jobs. As the primary caregivers of their families, single mothers face even more difficulties in the workforce, because they have to manage work, child care, and parenting duties without the help of a partner. For these reasons, single mothers are also more likely than two-parent families to be impoverished.

Young parents, such as those who begin to have children while in their teens, face a greater likelihood of poverty than parents who postpone childbearing until later ages; this is due to their having little time to establish a career or finish higher education. Families living in the South or in urban or rural areas are at higher risk for poverty as well. Although poverty used to be a solely urban phenomenon, rural residents have become increasingly impoverished through the decline of small, family-owned farms and now face the same limited access to low-paying jobs as urban residents. Additionally, rural residents lack public transportation resources and often cannot retain a job because they have no reliable means of getting there. Urban residents and families living in the South lost good jobs that included benefits and a decent wage as industry moved out of these areas into lower-cost parts of the country (like the suburbs) and to other parts of the world. Individuals with low educational achievement and those who are unemployed are also more likely to be impoverished than individuals who have high levels of education and those who hold jobs.

Poverty can result in a number of complications for families, including low educational achievement due to living in neighborhoods with poorly funded schools and overfilled classrooms. Two of the most visible effects of poverty are poor health and subpar access to preventative health care. Families living in poverty often cannot afford health insurance without public assistance and therefore forgo preventative care such as yearly checkups, immunizations, prenatal visits, and cancer screenings, which results in allowing serious diseases to proceed or worsen undiagnosed. Families without health insurance often rely on hospital emergency care when necessary, which is a less-efficient and more-expensive option than visiting a family doctor or other primary care provider. Impoverished families also tend to neglect dental care; untreated dental problems have future implications for general health and access to employment. Fathers of impoverished families are the most likely family members to neglect health care, followed by mothers and then children.

Living in poverty can also cause poor nutrition, and several programs have tried to provide the resources for adequate nutrition, appropriate caloric intake, and access to nutritious foods. Homelessness and access to substandard housing also occur as a result of poverty, because families often cannot afford to pay market-priced rent, let alone purchase a home. Several assistance programs are in place exclusively to prevent families from being without a place to live, as well as to regulate the standards of housing available. Substandard housing has been held accountable for compromising children's health. Old lead paint on cracking banisters can cause lead poisoning, and mice, cockroaches, or other vermin have been cited as causing children's asthma.

Public Assistance Programs

Antipoverty programs remain among the most highly criticized of all government programs in the United States. Much of this can be explained by the misperceptions that average Americans have of persons who are in poverty and who receive public assistance. There is a long-standing stereotype that persons receiving public assistance are attempting to work the system or are cheating to qualify for additional benefits. However, all public assistance and antipoverty programs in the United States are means-tested programs, meaning a family's income has to fall below a specific guideline in order for that family to qualify for services. Public assistance programs are funded in part by the federal government and in part by state and local governments. The federal government sets guidelines for how families can qualify for programs as well as for how much funding each state must also contribute to the programs. Also referred to as the welfare system, public assistance is comprised of five major programs: Temporary Assistance to Needy Families (TANF); the food stamp program; the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); Medicaid; and Subsidized Housing Programs.

The United States did not have any comprehensive public assistance programs until President Franklin D. Roosevelt mandated that the government provide employment

through public spending during the Great Depression. Public assistance continued to provide services to impoverished Americans until President Lyndon B. Johnson's War on Poverty attracted attention and, subsequently, scrutiny. Following the War on Poverty, the number of people accessing public assistance services grew rapidly. The enrollment for Aid to Families with Dependent Children (AFDC, a program that preceded TANF) increased by 270 percent, and enrollment for Medicaid (a program introduced in the 1960s) skyrocketed. The U.S. public continued to scrutinize the welfare system throughout the 1970s and 1980s, and all federally funded public assistance programs were eventually overhauled during the 1996 period of welfare reform under President Bill Clinton. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, commonly known as welfare reform, was hotly contested by advocates for the poor but did not end the debate over welfare. Although the number of people accessing social services has greatly declined since the 1996 reform (by as much as two-thirds), public assistance programs continue to undergo constant evaluations of their effectiveness.

Temporary Assistance for Needy Families

Temporary Assistance for Needy Families (TANF) is also referred to as cash assistance because it provides qualifying families with a monthly stipend of cash based on the number of persons present in a household and proportionate to the cost of living in their state. To qualify for TANF, recipients must generally have an income below the federal poverty level for their household size and must care for one or more dependent infants or children. Because mothers, rather than fathers, are more likely to have custody of their children, the vast majority of TANF recipients are women and their dependent children. Single persons not taking care of dependent children generally do not qualify for TANF.

Prior to the 1996 reform, TANF (then called AFDC) did not impose a time limit on recipient families, meaning that families could receive AFDC cash assistance indefinitely as long as they continued to meet the eligibility criteria. Opponents and critics of AFDC argued that the lack of time limits was not providing impoverished families with any incentive to get off assistance and go to work, and so post-1996 TANF instituted a federal standard of a 60-month lifetime limit per recipient. The second notable change of the reform called for stricter work requirements for its recipients, meaning a mother with children has to spend 10 to 40 hours per week participating in some kind of job training, job search, or educational program in order to remain eligible for TANF benefits.

Despite imposing time limits and work requirements, the 1996 reform also offered states some autonomy with respect to TANF. Individual states must follow the federal guidelines of the program but are allowed to amend the qualifying requirements if they so choose, meaning a family in one state might be permitted to have up to $2,000 in savings and still qualify for cash assistance, whereas another state might require families

to have almost no assets in order to qualify. The lifetime limit for TANF can also be extended by individual states through the use of additional state funds, although some states have elected to make the 60-month limit noncontinuous (meaning a person can only be on TANF for 24 continuous months and then must leave welfare for at least a month before exhausting the rest of the time limit). States were also granted the ability to waive or change work requirements for recipients as part of various state-sponsored trial projects; this flexibility allowed states to experiment with TANF requirements in order to arrive at the best and most efficient way to move individuals from welfare receipt to employment.

The effectiveness of the change from AFDC to TANF is notable, as the number of individuals seeking cash assistance has declined by two-thirds. TANF is still not without controversy, however, as the program has been criticized for not significantly improving the lives of those who seek its assistance. Families that leave welfare often do not make a clean break from the program and get caught in an on-again–off-again cycle until they've exhausted their lifetime limit. Because families sometimes remain impoverished even after their TANF receipt, many argue that the program's role as a transition from poverty to nonpoverty and employment has not been fulfilled. The emphasis on work requirements for welfare recipients has been very well received, as critics of TANF and AFDC were opposed to the idea that one could qualify for cash assistance without making a concerted effort to find employment. The success of these work requirements is limited, however, because requirements restrict the time a mother has to spend with her children and can put a strain on child care arrangements. Often, work programs offer child care assistance and other benefits, such as help with resume writing or transportation assistance, but these are not universally granted to all of those enrolled. Work programs are also criticized by recipients as being useless or as not teaching them anything, and the employment they find is often that of the minimum-wage, service-sector variety and offers no health insurance. One major challenge TANF faces in the future is to assist families in eventually achieving permanent, gainful employment in order to make a successful permanent transition out of poverty.

Food Stamps

The food stamp program began in 1961 in response to physicians and army recruiters who noticed the pervasiveness of malnutrition within urban and rural populations. Created to provide a better opportunity for families to meet their basic nutritional needs, the food stamp program follows federal guidelines for qualification that are more lenient than those for TANF, meaning families who do not qualify for TANF may at least receive some food stamp assistance. If a family is already receiving TANF, they are automatically eligible for food stamps. If not receiving TANF, a family must have a gross income of less than 130 percent of the federal poverty level and less than $2,000 in assets (excluding the worth of their home and one car worth less than $4,500) to qualify. Food stamps

may be used to purchase any type of food item except hot, prepared foods intended for immediate consumption. The amount of food stamps a family receives is based on the family size as well as the state's cost of living. An average family of three (one adult, two children) receives $200 per month in food stamps. Families must requalify for food stamps every six months to one year but are not required to report changes in income in between requalification periods.

The effectiveness of the food stamp program has been criticized because food stamp participants are still more likely to have poor nutrition than are non–food stamp participants. The 1996 National Food Stamp Survey found 50 percent of respondents still experience times without adequate food, and many households do not get enough folic acid or iron in their diets. Food stamps are not restricted only for the purchase of healthy foods, which leads some researchers to believe they have not improved impoverished families' nutrition and overall health. Food stamp participants are more likely to be obese, which could be due to families' choosing to purchase high-fat foods. However, families that receive food stamps tend to spend more on food than they would otherwise, and food stamp participants showed increased consumption of protein, vitamins A, B6, and C, and other important minerals.

Food stamp fraud presents another point of concern for the food stamp program because food stamp recipients sometimes sell food stamps for cash as opposed to using them to buy food. The going rate for food stamp resale is between 50 and 65 percent of face value, meaning $100 of food stamps is worth about $50 on the street. Studies have suggested, however, that the people selling food stamps also buy stamps. This indicates that families might be so strapped for cash that they prefer to sell stamps when they need cash, but then later buy their stamps back to purchase food. Scholars have proposed that the food stamp program can circumvent this issue by distributing stamps throughout the month rather than in a once-per-month lump sum.

WIC

Like the food stamp program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) was formed to provide nursing or pregnant mothers and children under five years old with better nutritional resources. WIC provides participants with certificates redeemable at participating markets for food items such as milk, cheese, cereal, beans, baby formula, and peanut butter in an amount equivalent to roughly $40 per month. These food items are sources of iron, vitamins A and C, calcium, and protein. WIC also provides participants with a nutritional education session each month when they come to get their WIC coupons and monitors the development of infants and children under five years old. Children are no longer eligible for WIC benefits after their fifth birthday, and mothers must be nursing or pregnant to qualify.

Participants must have incomes under 185 percent of the federal poverty level, although mothers and children under five years old automatically qualify if they are also

receiving Medicaid. The more generous income guidelines have come under fire, because this allows more people to qualify for WIC and raises the cost of the program, although participation rates for WIC are much lower than they would be if every eligible individual participated. However, this underenrollment raises questions about whether WIC is truly serving the families who might need it the most. WIC, compared to the food stamp program, loses very little money to fraud, probably due to the food-item-specific nature of the program. The food coupons have very little resale value because they are restricted to certain food items and, furthermore, specific product sizes and brands.

Because WIC is the most-studied federal nutrition program, there is less controversy over whether WIC is effective compared to the food stamp program or the National School Lunch Program. WIC participation has reduced the incidence of low- and very low–birthweight babies, meaning public money spent on WIC saves on medical expenditures in the long run. Studies of WIC have also found positive health outcomes for toddlers, although not to the same extent as the outcomes for infants. Some have criticized the WIC program because it offers nursing mothers free formula and subsequently provides a disincentive to breast-feed. The health portion of the WIC program has begun to encourage mothers to breast-feed, but WIC mothers are still less likely to breast-feed than mothers not in the program. This program continues to cause controversy among health professionals and scholars who believe breast-feeding to be an important part of developing infants' immunity, the mothers' health, and the mother-child bond.

Medicaid

The Medicaid program seeks to provide federally and state-funded health insurance to qualifying low-income women and children. The Medicaid program also offers public health insurance to disabled (disability insurance) and elderly persons (Medicare). About half of all Medicaid recipients are low-income children and one-fifth are low-income women. Medicaid is the most expensive public service program, spending about $280 billion annually, with most of the costs going toward the health care and treatment of the elderly. The $47 billion that goes toward impoverished women's and children's health care is still very costly, especially when compared to the annual cost of TANF ($16 billion) and the food stamp program ($24 billion). Despite the program's vast spending, each year over the past decade, roughly 12 percent of all children in the United States have gone without health insurance. It is expected, however, that the Health Care and Education Reconciliation Act of 2010 will begin lessening that percentage.

Access to health insurance and preventative care is important for impoverished families' well-being, and Medicaid insurance provides very low-cost health care to families who qualify. As of the change implemented by the Deficit Reduction Act of 1984, any families who qualify for TANF are automatically eligible for Medicaid benefits as well. The Medicaid income cutoffs continued to become more generous, and more federal funding was set aside in order to guarantee more children's access to health care.

Medicaid benefits became available to pregnant women, two-parent families, and to teenage mothers living with their parents, as long as the incomes of these various types of households fell within the qualifying income guidelines. By the 1990s, families with incomes at 130 percent of the federal poverty line or below became eligible for Medicaid, with some states choosing to raise eligibility guidelines further, up to 185 percent of the poverty level. By October 1997, 41 of 50 states were using their own funds to raise the income guidelines for women and children.

Having Medicaid does not necessarily translate into having access to health services, because providers often restrict their practice to allowing only a certain percentage of Medicaid patients or refuse to see these patients at all. Additionally, the length of Medicaid doctor visits is, on average, shorter than the average non-Medicaid visit, which may indicate a lower quality of care for Medicaid patients. Medical institutions often cite Medicaid's slow reimbursement and excessive paperwork as a reason to prefer privately insured patients. Despite Medicaid's controversial position with practitioners, public health remains an important service that, at the very least, makes preventative and routine health care available and affordable to low-income women and their children.

Housing Programs

Although there are multiple kinds of housing programs, only two will be discussed here. Housing programs began in general with the passing of the Housing Act of 1949, which called for an end to unsafe, substandard housing. Some housing programs operate by offering incentives to contractors to construct low-income housing. In contrast, the programs discussed here provide low-cost housing to families at lower-than-market rent. Public housing developments are perhaps the most visible of these programs. These developments offer available units to families with income below the poverty level for rent proportionate to one-third of their monthly income.

Although public housing must meet a certain standard of cleanliness and construction, some housing developments have not uniformly met these guidelines. Public housing generally gets a bad reputation regardless of its quality or location. Families must often sign up for housing years in advance, due to the long waiting lists that exist for these units. In cities such as New York, over 100,000 families are on a housing waiting list. In contrast, the availability of public housing units in central Pennsylvania has motivated families to move to the area just to have access to housing.

The Section 8 program operates along the same income and benefit guidelines as public housing developments, except Section 8 allows families to select the housing of their choice. After a family gets past a waiting list longer than that for most public housing, Section 8 grants the family with a voucher and the family must find private-sector housing that meets the quality standards of public housing. If a family is able to do this, the voucher pays for a portion of the family's rent. This amount is typically proportionate

to two-thirds of the market-rate rental price. As with public housing developments, the family ends up paying for one-third of the total rental amount.

Public housing is exceedingly helpful for the families who are able to get through the waiting lists, although a great deal of controversy remains over whether public housing developments are good and safe environments for children. The main issue public housing faces is providing all of those families in need with affordable housing options. As waiting lists indicate, this goal has not been met.

Ending Point

Poverty is clearly a problematic circumstance for families, and although antipoverty programs have had success in reducing the number of families in poverty, public assistance programs face various controversies of their own. Perhaps one of the most important issues with public assistance programs is their uniform neglect of fathers. Fathers cannot qualify for cash assistance unless they have full custody of their dependents, and fathers do not qualify for food stamps for the same reason. WIC is aimed only toward women and their children under five years old, and public housing does not typically provide housing services to men without families. In cases where the father is not married to the mother of his children, the father's presence in a public housing unit is actually illegal and may cause a mother and children to lose their housing subsidy.

In light of recent programs that promote marriage among low-income, unmarried parents (such as the Healthy Marriage Initiative), public assistance programs should consider expanding the eligibility requirements to men rather than restrict services to women and children only. Marriage programs do not cooperate with public assistance programs in a way that is productive for creating stable families; the fact that a mother can lose access to public housing if her partner lives with her is an indication of this. In order to successfully continue to provide impoverished families with much-needed resources, perhaps even a resident father's income, and encourage unity among families, public assistance will have to consider changing its policies in the future.

See also **Child Care; Foster Care; Homelessness; Health Care (vol. 1); Poverty and Race (vol. 1); Social Security (vol. 1); Unemployment (vol. 1)**

Further Reading

Allard, Scott W., *Out of Reach: Place, Poverty, and the New American Welfare State.* New Haven, CT: Yale University Press, 2009.

Almanac of Policy Issues, http://www.policyalmanac.org

Blank, Rebecca and Ron Hoskins, *The New World of Welfare.* Washington, DC: Brookings Institution Press, 2001.

Cancian, Maria, and Sheldon Danziger, eds., *Changing Poverty, Changing Policies.* New York: Russell Sage Foundation, 2009.

Chappell, Marisa, *The War on Welfare: Family, Poverty, and Politics in Modern America.* Philadelphia: University of Pennsylvania Press, 2010.

Currie, Janet M., *The Invisible Safety Net.* Princeton, NJ: Princeton University Press, 2006.

Grogger, Jeffrey, and Lynn A. Karoly, *Welfare Reform: Effects of a Decade of Change.* Cambridge, MA: Harvard University Press, 2005.

Pickering, Kathleen, et al., *Welfare Reform in Persistent Rural Poverty: Dreams, Disenchantment, and Diversity.* University Park: Pennsylvania State University Press, 2006.

Urban Institute, http://www.urban.org

PRAYER IN PUBLIC SCHOOLS

Ron Mock

The First Amendment to the United States Constitution includes two guarantees about religion:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.

The phrase *shall make no law respecting an establishment of religion* prohibits Congress from enacting any laws that have the effect of creating an official religion or committing the government's resources to supporting or promoting any particular faith. But the Constitution also says that Congress shall make no law. *prohibiting the free exercise* of religion. This provision protects the individual's right to follow his or her conscience, both in determining what to believe and in deciding what those beliefs require the individual to do.

Sometimes these two guarantees collide when people feel a need to practice their faiths in public settings. In the United States, the venue where the conflicts are greatest and most controversial is the public school.

History of the First Amendment as Applied to Public Schools

When the Constitution was first adopted, it had no explicit guarantee of religious freedom, other than a prohibition on using any "religious test" as a prerequisite for public office. The framers assumed that civil liberties would be protected by the states and that the Constitution did nothing to infringe them. But some Americans were concerned that, without clearer provisions in the new federal Constitution, the national government might act to undermine their rights. So, 12 amendments were proposed by the first Congress to address this worry. Of these, 10 were ratified by the states, including the First Amendment.

The First Amendment is directed at the federal government: "Congress shall make no law…" Public schools in the United States are run by the states or by the local governments created by the states, which are not mentioned in the First Amendment.

(At the time the First Amendment was adopted, some states had established churches, a practice that persisted into the early 19th century.) After the Civil War, Congress proposed, and the states ratified, the Fourteenth Amendment, which includes a provision forbidding any state to "deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." The United States Supreme Court interpreted this provision to apply to religious freedom, declaring that the Fourteenth Amendment incorporates the First Amendment and religious freedom as part of the liberty that states must not infringe.

Since the middle of the 20th century, the Supreme Court has decided a steady stream of cases dealing with the First Amendment in public schools. Although there has been substantial confusion among the general public about what these cases mean, they can be summarized as follows:

- The constitutional ban on laws *respecting an establishment of religion* (the establishment clause) prohibits national, state, and local governments from offering any kind of support to any religious faith, whether it be in the form of money, facilities, or endorsement.
- The constitutional guarantee of religious liberty (the free exercise clause) allows citizens to practice their religious faith without interference from the government, unless there is a *compelling* issue of public safety or welfare. Even in the rare cases in which governments can restrict religious practice, the regulation has to be the least restrictive possible to achieve the compelling public purpose.
- In cases where a government agency has created a forum for public expression, it cannot restrict access to that forum based on the content of what is being expressed. In particular, it may not bar religious groups from using the forum because of the religious content of their speech or other activities.

Controversial Impact on Public Schools

Some of the uproar about religion in the public schools is based on misperceptions. It is not true, for example, that prayer is banned in public schools. Students and staff may pray privately at any time. Students can also pray publicly in settings where they initiate the prayer themselves, and employees of the school do not exercise control over what is said. Students can also express their religious views at any time they choose, subject to the normal rules schools can impose to keep order and protect the educational environment.

Students may not force *captive audiences* to participate or observe. Nor may they interfere with class discipline or disrupt the normal operations of the school. Otherwise, students are free to pray, study the scriptures, worship, and share their faith on school grounds to the same extent as any other kind of student activity and expression.

U.S. SUPREME COURT CASES INVOLVING THE FIRST AMENDMENT IN PUBLIC SCHOOLS

Everson v. Board of Education of Ewing Township, 330 U.S. 1 (1947): Court applies First Amendment ban on establishing religion to the states.

Engel v. Vitale, 370 U.S. 421 (1962): Public schools may not sponsor or mandate a short nondenominational prayer.

Abington School District v. Schempp, 374 U.S. 203 (1963): Public schools may not sponsor or mandate the reading of the Lord's Prayer or other Bible verses.

Tinker v. Des Moines Independent Community School District, 393 U.S. 503 (1969): Public schools may not ban specific kinds of nonobscene speech but may enforce content-neutral regulations for the purpose of maintaining order and a good learning environment.

Lemon v. Kurtzman, 403 U.S. 602 (1971): Public money may not be allocated directly to parochial schools, because doing so violates at least one part of a three-part test: (1) whether the government action has a secular purpose; (2) whether the primary effect of the government action advances or inhibits religion; or (3) whether the action brings government into excessive entanglement with religion, such as resolving doctrinal issues or the like.

Widmar v. Vincent, 454 U.S. 263 (1981): Public universities may not deny use of university facilities for worship if they are available for other student or community groups.

Wallace v. Jaffree, 472 U.S. 38 (1985): Public schools cannot set aside a minute of silence expressly for meditation or voluntary prayer.

Board of Education of the Westside Community Schools v. Mergens, 496 U.S. 226 (1990): The federal Equal Access Act of 1984 is constitutional, requiring public schools to allow students to organize religious groups if the school allows students to form similar groups for nonreligious purposes.

Lee v. Weisman, 505 U.S. 577 (1992): Public schools cannot sponsor prayers of invocation or benediction at graduation ceremonies.

Rosenberger v. The Rector and Visitors of the University of Virginia, 515 U.S. 819 (1995): If other student-initiated groups are given student activities funds, a public university may not deny those funds to student-initiated religious groups.

Santa Fe Independent School District v. Doe, 530 U.S. 790 (2000): Public schools cannot sponsor prayers of invocation or benediction at athletic events.

Good News Club v. Milford Central School, 533 U.S. 98 (2001): Public schools may not deny access to religious groups to use their facilities after school if they have allowed access to other community groups.

Employees, on the other hand, are restricted in some of the ways they might express their religious faith. Employees are free to practice their faith on their own time, or even with colleagues in settings that are entirely voluntary—after school hours in the faculty lounge, for example. But when students are involved, the Supreme Court has ruled that

the employee's free exercise rights are limited by the students' right not to be subjected to a de facto *established* religion. So, while employees can be present to preserve safety and proper order even when students have organized themselves for prayer or scripture study, the employees cannot participate in the religious aspects of the activity or reward or punish students for their participation.

Setting aside the conflicts that arise from misunderstanding of the law—by parents as well as school staff and administrators—there is still controversy among religious leaders and lay people about the current interpretation of the Constitution as applied to public schools. Some religious groups have essentially accepted the current rules about prayer and other religious activities in public schools. The conservative Christian group Focus on the Family offers resources describing current law and suggestions for how to help students organize prayer meetings and share their faith on campus within the law. Moderate to conservative Christian attorneys pursue similar ends through organizations such as the American Center for Law and Justice and the Christian Legal Society's Center for Law and Religious Freedom.

But others feel that the Constitution should be interpreted to permit more freewheeling religious expression on public school campuses by students, community members, and employees alike. Most of the arguments fall into one of five categories:

- *The Christian nation argument:* The United States was founded as a Christian nation, and the Constitution should be interpreted in light of this. The ban on establishing a religion was not meant to exclude public expressions of Christianity by government officials, including teachers in schools.
- *The majoritarian argument:* In a democracy, when a community is in overwhelming agreement about what should happen in its schools, it should be able to implement that consensus.
- *The educational benefits argument:* There are positive educational benefits available to students from various religious activities.
- *The religious community argument:* All the major religions include a strong community emphasis, calling adherents to worship, study, or act jointly with others in public life, including school. True freedom of religion requires freedom to practice one's faith in this kind of community setting.
- *The religious accommodation argument:* Some of the private, individualized duties in many faiths have to be carried out in public or at times of the day that bring them into the school setting. Schools need to find ways to accommodate these practices or they will be prohibiting the free exercise of religion.

The first two lines of argument are most often made by Protestant Christians, naturally, since most of the framers of the Constitution were Protestants, and Protestants are by far the group most likely to constitute a dominant majority in school districts in the United States. They are both essentially arguments from the basis of political theory,

saying public religious activity is appropriate because of the kind of nation the United States is, either by definition in its founding documents or by the political will of the current majority.

Other believers, however, including many Christians, object to the elevation of any specific faith to a privileged position in public institutions. For one thing, even in the most homogeneous communities in the United States, there are strong differences among citizens about matters of religious doctrine. Sometimes the differences are major, involving fundamental issues about the existence of God (or gods). Other times the disputes are about issues that seem minor to outsiders but are crucial to those who disagree, including issues ranging from the roles of men and women to matters of ethics or lifestyle. Those who framed the Constitution had similar disagreements among themselves.

Whatever the differences, to assemble a majority involves one of three choices, all of which are unacceptable: forcing some people to accept or participate in expressions of faith that violate their consciences; compromising on important issues in ways that will put everyone in uncomfortable positions; or finding a way to gloss over the differences. The result, according to these critics, is a bland *civil religion* that masks living faith and even distracts people from a true encounter with God.

Whatever the merits of the *Christian nation* or *majoritarian* arguments, they are clearly unpersuasive in the courts on *establishment of religion* grounds. There does not appear to be any realistic possibility that either approach will become the basis for U.S. law in the foreseeable future.

The *educational benefits* argument shifts focus to the educational purposes of schools. If we hope for our schools to educate the entire person, then we should encourage students to reflect on their moral and spiritual duties by exposing them to stories of faith and the basic teachings of religion. This line of reasoning is subtle and profound and has several layers of appeal.

On the surface, the argument for religious expression in school addresses prosaic concerns like discouraging disruptive behavior or encouraging scholarly virtues like discipline and hard work. If students are given a few moments at the beginning of the day to pray, to think about their duties to those around them, and to consider their deepest goals for their lives, there may be immediate and visible benefits in how well they do at their studies and how smoothly the school operates. This has been a persuasive line of reasoning in the courts, which have accepted such measures of moments of silence to start the day as long as school staff do not encourage (or discourage) students to use the time to pray or do other religious actions.

But the educational benefits of open religious practice or study in school might include more than just improving the educational atmosphere. If religion is an important factor in modern life, and if modern communications and transportation make it likely that students will encounter many faiths different than their own, then it might be valuable for students to learn about each other's faith in school. Study of religion and watching other faiths' practices would be good cross-cultural learning.

And there is an even deeper possible educational benefit. Because so much of students' time is spent in school, and because the public has a clear interest in developing virtuous citizens, then helping students to internalize solid values like honesty and caring for others is a public interest. Religion has traditionally promoted these kinds of values, a function that could be enhanced if religion and religious instruction were given freer rein in the public schools.

Focusing on the educational benefits of exposure to religion in this way does not ask schools to favor one faith over another. In fact, schools would be encouraged to make space for encounters with as many religions as possible—at least all those represented among the student population in the school. Courts have been open to this practice in schools, although they are still watchful, worried that activities that appear on the surface to be neutral toward various faiths might be mere covers for the advancement of one faith. For example, attempts by various states to provide for moments of silence before school have had mixed success in the courts. They have sometimes been rejected because people sponsoring the moments of silence went on record saying their goal was to encourage students to pray in school.

But the *educational benefits* argument is not always popular with parents, students, or even teachers. People worry that students may be converted to disfavored religions, either as a natural result of learning more about them or because they have been recruited to a new religious faith by people abusing the freedom to practice their faith at school.

The final two arguments (the *religious community* and *religious accommodation* arguments) have had more success in changing school practices. These focus on the believer's attempt to live faithfully to his or her religion. Here, the religious freedom side of the First Amendment comes into full focus, and the concerns about establishing a religion are least prominent. The claim here is that schools need to be flexible in their operation to allow students and employees to participate fully in the schools without forcing them into a position of having to violate the commandments of their faith.

Courts generally have been willing to accept, and in some cases even to require, attempts by public schools to make changes in their operations or programs to accommodate those who find the standard school experience to be contrary to their understanding of God's will. For example, schools have had to reschedule athletic events to permit students to participate without violating religious Sabbath-day requirements. Schools have altered menus to accommodate religious diets; created space in the school, and time in the day to allow Muslims to conduct required prayers; allowed students to opt out of dancing classes or other activities that violate their religious teachings; and many other forms of accommodation.

Conclusion

Courts in the United States developed their current interpretation of the First Amendment in a series of decisions since the mid-20th century. The boundary lines between what is and what is not permitted in the public schools are not yet settled firmly. But

some areas of permissible activity have been clearly recognized, especially those involving voluntary nondisruptive activities organized by students. When students organize the events and do not seek special privileges not offered to other student groups, they can pray, study the scriptures, support each other, and even share their faith gently with other students who consent to hear their message.

See also **Creationism, Intelligent Design, and Evolution; Religious Symbols on Government Property; School Choice**

Further Reading

American Center for Law and Justice, http://www.aclj.org

American Civil Liberties Union, http://www.aclu.org/religion/index.html

Americans United for Separation of Church and State, http://www.au.org

Center for Law and Religious Freedom, http://www.clsnet.org

Dawson Institute for Church-State Studies (Baylor University), http://www.baylor.edu/church_state/splash.php

Dierenfield, Bruce J., *The Battle over School Prayer: How* Engle v. Vitale *Changed America.* Lawrence: University Press of Kansas, 2007.

First Freedom Center, http://www.firstfreedom.org

Fisher, Louis and David G. Adler, *American Constitutional Law.* Vol. 2, *Constitutional Rights: Civil Rights and Civil Liberties,* 7th ed. Durham, NC: Carolina Academic Press, 2007.

O'Brien, David M., *Constitutional Law and Politics.* Vol. 2, *Civil Rights and Civil Liberties.* New York: W. W. Norton, 2005 (especially chapter 6).

People for the American Way, http://www.pfaw.org/pfaw

The Rutherford Institute, http://www.rutherford.org

Solomon, Stephen, *Ellery's Protest: How One Young Man Defied Tradition and Sparked the Battle over School Prayer.* Ann Arbor: University of Michigan Press, 2007.

R

RELIGIOUS SYMBOLS ON GOVERNMENT PROPERTY

Ron Mock

Abraham Lincoln famously described America's democratic dream as "government of the people, by the people, and for the people," a vision that is shared by billions of people around the world. The first commitment of democratic government, then, is to enact laws, carry out policies, and behave in ways that embody the aspirations and values of the people.

Many people draw their most important values and sense of identity from their religion. Since their faith is central to their lives, they long to live with others of similar convictions so they can help each other build lives that draw upon and reflect their faiths. People have migrated, at risk to their lives, across oceans and continents and settled in wildernesses, deserts, jungles, and other harsh environments to have a chance to build communities of faith. The United States was built in large part on the contributions of several different religious communities, from Puritans in Massachusetts, Quakers in Pennsylvania, Catholics in Maryland and the desert Southwest, Lutherans in the upper Midwest, Mennonites in several northern states stretching from Kansas to Pennsylvania, Baptists in the South, Mormons in Utah, and many others. A snapshot of the United States today would include the descendants of all these religious communities, and hundreds of others, stretching outside Christianity to include Jews, Muslims, Hindus, Buddhists, Baha'i, and others.

But as soon as a political system is erected that incorporates more than one faith, a conflict arises: whose religious convictions get to be embodied in the policies and

activities of the government? Should the work week include a Sunday Sabbath day of rest to accommodate Christian beliefs? Or Saturday, as most Jews and some Christians would prefer? Or Friday, in accord with Muslim beliefs? What should be taught in schools about the origins of the universe, or values of right and wrong, or the relative roles of women and men in life, and many other topics?

Conflict over religious dimensions of community life can become intense because people believe the stakes are so high. If someone is teaching my children falsehoods about God and the universe and how they should live, they are threatening both the quality of life in this world and, possibly, dooming my children to eternal death rather than eternal life in heaven. Unfortunately, human history is scarred with battles over control of government policy between different religious groups, including some of the bloodiest wars ever. As this is written, struggles over how to reflect people's religious faiths in their government are especially bloody in places like Iraq, Afghanistan, Pakistan, India, Lebanon, and Israel, and Palestine.

America's founders were aware of this danger. So the First Amendment to the United States Constitution begins with the statement:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof.

With these words, the framers of the Constitution hoped to build a hedge of law around the deep passions evoked by our religious faiths. The principle of government *by the people* was given a limitation: even if most of the people wanted to, they would not be able to use the machinery of the federal government to establish their faith as the official faith of the entire nation. The free exercise clause ("Congress shall make no law…prohibiting the free exercise [of religion]") guarantees that the government will not be used to suppress faith. And the establishment clause ("Congress shall make no law respecting an establishment of religion") prevents the government from favoring one faith, even when directed by a clear majority of the people.

This article will focus on how the establishment clause has been interpreted by the courts in the United States to determine whether it is constitutional for a government agency to display religious symbols or engage in other religious activities or expression, such as prayers or slogans.

Interpretation of the Establishment Clause

At the time the First Amendment was ratified, some state governments had established churches, which included appropriations of tax money to the coffers of specific Christian denominations. These churches were disestablished over the next few decades, so that by the time the Fourteenth Amendment was ratified after the Civil War, there were no churches with official *established* status anywhere in the United States.

The Fourteenth Amendment says, in part:

> No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

The Fourteenth Amendment has been interpreted by the United States Supreme Court to incorporate various parts of the Bill of Rights, thereby extending civil rights protections to citizens against possible actions by the states. In the case of *Cantwell v. Connecticut* (1940), the Supreme Court ruled that the prohibition against establishing a religion was one of the rights incorporated in the Fourteenth Amendment, thus making official what had been observed in practice for a century: no state could *establish* a particular faith by specially favoring it over another faith.

But this leaves a wide range of issues, where democratic dynamics push government to reflect citizens' religious commitments, but the Constitution prohibits the government from endorsing any religion. The Supreme Court has upheld some practices that bring religious faith into contact with the activities of governments, such as opening legislative sessions with prayer at the state level (*Marsh v. Chambers* 1983); passing laws barring some commercial activity on Sunday (*McGowan v. Maryland* 1961); displaying a Christian nativity scene on public property along with non-Christian symbols such as Santa Claus, reindeer, a Christmas tree, and Christmas presents (*Lynch v. Donnelly* 1983); and granting property tax exemptions to religious worship organizations (*Walz v. Tax Commission of the City of New York* 1970).

Other practices have been ruled unconstitutional, including laws requiring the posting of the Ten Commandments in public school classrooms (*Stone v. Graham* 1980); school-organized prayers in classrooms (*Abington School District v. Schempp* 1963), at football games (*Santa Fe Independent School District v. Doe* 2000) and at graduations (*Lee v. Weisman* 1992).

These cases left laypeople (and lawyers) confused about what is, and what is not, permissible. Part of the problem is that the Supreme Court has not stuck to one single test for deciding matters. In some of the cases, the Court applied a three-part test first outlined in *Lemon v. Kurtzman* (1971):

1. Is the purpose of the government's action primarily secular?
2. Does it have the primary effect of encouraging or discouraging religious faith?
3. Does it threaten to entangle the government in the internal affairs of a religious group, especially in making judgments about questions of faith or doctrine?

School prayers, for example, do not meet the *Lemon* test, because courts have trouble believing the purpose of a prayer is not primarily religious. Multifaith Christmas displays do better, because it is easier to defend them as having either no religious purpose,

since so many contrasting faiths are on display, including completely secular symbols such as Santa Claus. But these simple generalizations do not cover every case. If school prayers led by district employees, or involving captive audiences at sporting events or graduations, are not constitutional, why is it constitutional to have Congress or a state legislature pay a chaplain to offer a prayer to open its daily sessions?

Sometimes the Court has taken pains to point out that religion has played a major role in U.S. history, and still does in the lives of most Americans. This point is used in two ways. Some justices (especially William Rehnquist, Antonin Scalia, and Clarence Thomas) have employed it to argue that the framers of the First Amendment could not have meant to bar some interdenominational expressions of religious conviction by the government. They point to many examples of official congressional actions or presidential addresses that invoke faith in God, including prayers, resolutions, proclamations, and other communications, which were made while the First Amendment was being ratified, and which continued unabated right after ratification. This is a classic *originalist* argument, insisting that the Constitution needs to be applied today consistently with how the original authors of the Constitution would have understood it when they adopted it. Thus, evidence that so many governmental leaders thought opening Congress with a prayer was not a form of establishing a religion, means the establishment clause was not seen at the time as covering interfaith prayers at government functions.

Most Supreme Court justices have not been originalists. They believe the Constitution should be applied in light of things we have learned since it was originally adopted. Thus, the original idea that *separate but equal* was an acceptable way to provide *equal protection of the laws* under the Fourteenth Amendment does not bind us today, according to the nonoriginalist view, since we learned long ago that *separate but equal* does not work as advertised. But even many nonoriginalists invoke the role of religion in American life to suggest that government acknowledgement of religion is acceptable if it is more descriptive than prescriptive—that is, if it objectively acknowledges or reports what people believe without endorsing or promoting (or criticizing) those beliefs. So a Christmas scene with secular symbols mixed in with religious symbols from a variety of faiths passes muster because it depicts (without endorsement) the range of views one could find in the community.

But other justices see most forms of government recognition of religion as violating the Constitution, essentially on the grounds that anything that throws positive (or negative) light on a faith has the effect of helping (or hindering) it, and thus functions as an endorsement (or critique) even when it is not intended to be.

None of these three broad approaches has garnered enough support to command a stable majority of the Court.

The 2005 Ten Commandments Cases

On June 27, 2005, the Supreme Court decided two cases involving displays of the Ten Commandments on government property. All of the dynamics that made this area of the

U.S. SUPREME COURT CASES INVOLVING RELIGIOUS SYMBOLS ON GOVERNMENT PROPERTY

Cantwell v. Connecticut, 310 U.S. 296 (1940): the First Amendment applies to the states and prevents them from regulating public speech based on its religious content.

Everson v. Board of Education of Ewing Township, 330 U.S. 1 (1947): Court applies First Amendment ban on establishing religion to the states.

McGowan v. Maryland, 366 U.S. 420 (1961): States or localities may restrict commercial activity on Sunday.

Engel v. Vitale, 370 U.S. 421 (1962): Public schools may not sponsor or mandate a short nondenominational prayer.

Abington School District v. Schempp, 374 U.S. 203 (1963): Public schools may not sponsor or mandate the reading of the Lord's Prayer or other Bible verses.

Tinker v. Des Moines Independent Community School District, 393 U.S. 503 (1969): Public schools may not ban specific kinds of nonobscene speech but may enforce content-neutral regulations for the purpose of maintaining order and a good learning environment.

Walz v. Tax Commission of the City of New York, 397 U.S. 664 (1970): States may grant tax exemptions to houses of worship.

Lemon v. Kurtzman, 403 U.S. 602 (1971): Public money may not be allocated directly to parochial schools because doing so violates at least one part of a three-part test: (1) whether the government action has a secular purpose; (2) whether the primary effect of the government action advances or inhibits religion; or (3) whether the action brings government into excessive *entanglement* with religion, such as resolving doctrinal issues or the like.

Stone v. Graham, 449 U.S. 39 (1980): States may not require the Ten Commandments to be posted in public school classrooms.

Marsh v. Chambers, 463 U.S. 783 (1983): State legislatures may open their sessions with prayers from a chaplain employed by the state.

Lynch v. Donnelly, 465 U.S. 668 (1983): A local government may display a Christian nativity scene on public property along with non-Christian symbols such as Santa Claus, reindeer, a Christmas tree, and Christmas presents.

Lee v. Weisman, 505 U.S. 577 (1992): Public schools may not sponsor prayers at graduation ceremonies.

Santa Fe Independent School District v. Doe, 530 U.S. 290 (2000): Public schools may not sponsor public prayers before school sporting events.

Van Orden v. Perry, 545 U.S. 677 (2005): A state may maintain a monument displaying the text of the Ten Commandments when there is no evidence the state had a religious motive for doing so and the display is in a context that does not communicate an essential intent to advance or endorse religious faith.

McCreary County v. American Civil Liberties Union, 545 U.S. 844 (2005): Counties may not post the Ten Commandments publicly when it is clear the intent for doing so was to endorse or advance religion.

law so murky were at work in these cases: competing visions of constitutional interpretation; contrasting views about the propriety of acknowledging religion on government property; even disagreement over how central religion has been in the development of the country. At first glance, the results were even more confusing than normal, since in one case the display of the Ten Commandments was upheld as constitutional, while in the other it was ruled to be impermissible. Each vote was five to four, with Justice Stephen Breyer voting in the majority each time.

In *Van Orden v. Perry* (2005), the state of Texas maintained a plaque on a six-foot tall monument on the grounds of the state capitol, on which was inscribed the Ten Commandments. The monument was donated in 1961 to Texas by the Fraternal Order of Eagles, a national service club, as part of a campaign against juvenile delinquency. The Eagles were hopeful that, if young people were more aware of the rules of behavior in the Ten Commandments, juvenile crime would diminish. The donation to Texas was part of a campaign in which similar monuments were donated to state governments around the nation. There were 16 other monuments of similar scale on the 21-acre grounds around the capitol, none of the rest of which involved religious texts.

The inscription on the monument quotes from the Old Testament book of Exodus, although in somewhat condensed form. It starts in bold, centered text with Exodus 20:2, "I AM the LORD thy GOD" and then lists each of the Commandments. The text was framed by symbols—two stone tablets like the ones on which God wrote the original Ten Commandments, two stars of David (a Jewish symbol), and the Greek letters chi and rho (a Christian symbol).

In *McCreary County v. American Civil Liberties Union* (2005), two Kentucky counties tried three times to get the Ten Commandments posted on their courthouse walls. In the first attempt, the Ten Commandments were displayed by themselves prominently in the courthouse. The text of the display was similar to the one in Texas, except that the preamble "I AM the LORD thy GOD" was omitted. In Pulaski County, there was a ceremony when the display was hung in which a county official made comments about the existence of God. When the American Civil Liberties Union sued in court seeking an injunction ordering the displays to be removed, the counties each adopted a resolution explaining that the Ten Commandments were "the precedent legal code upon which the civil and criminal codes" of Kentucky were founded, and stating that county leaders shared with America's Founding Fathers an "explicit understanding of the duty of elected officials to publicly acknowledge God as the source of America's strength and direction." These resolutions directed that the displays be expanded to include eight excerpts from other historical documents in which there was some reference to God (such as Pilgrim's Mayflower Compact and the passage from the Declaration of Independence in which the Continental Congress had said that all "men are endowed by their Creator with certain inalienable rights").

When the federal district court ordered the displays removed because they lacked any secular purpose and were distinctly religious, the counties created a third display. This one included nine documents of identical size, one of which was the Ten Commandments (in a more complete text). The others were the Magna Carta, Declaration of Independence, Bill of Rights, the Preamble to the Kentucky Constitution, Mayflower Compact, *Star Spangled Banner,* the National Motto (*In God We Trust*), and a picture of Lady Justice. Each document was accompanied by a statement of its historical and legal significance. The one for the Ten Commandments explained that they had "profoundly influenced the formation of Western legal thought and the formation of our country" and provided "the moral background of the Declaration of Independence and the foundation of our legal tradition."

These two cases reached the United States Supreme Court at about the same time and were argued in the fall of 2004. The opinions in both cases were announced on the same day the following June.

In *Van Orden,* five justices voted to uphold the display of the Ten Commandments on the grounds of the Texas capitol, while four voted to rule it was unconstitutional. In *McCreary,* five justices voted to rule the displays were unconstitutional, while four voted to uphold them.

The four justices who would have upheld both displays used two principal lines of argument. First, Justices Scalia, Rehnquist, and Thomas argued that government was not barred from favoring religious practice, because the original framers of the constitution would not have intended such a thing—an originalist argument. Justice Anthony Kennedy did not join in that view but did agree with the other three justices that, in each of these two cases, the intent of the displays was secular: to reduce juvenile delinquency in the Texas case and to inform citizens of some of the main historical sources of the modern legal system in the Kentucky case. Since there was a legitimate secular purpose, strong enough by itself to justify the creation of the displays, they would be acceptable under the *Lemon* test, or any other test, according to these justices.

The four justices who would have ruled all the displays unconstitutional (Sandra Day O'Connor, John Paul Stevens, Ruth Bader Ginsburg, and David Souter) used, either explicitly (in *McCreary*) or implicitly (in *Van Orden*), the *Lemon* test. They found that the displays had a primary religious intent, to go along with at least some religious effect on those who saw them. In *McCreary,* the religious intent was easy to discern in the second phase of the project, including the resolution that pointed to God as the source of America's strength, and in the focus on religious texts in the display. Whereas the four justices in the minority in *McCreary* generally ignored the first two attempts to get the display done, the majority opinion (by Souter) assumed that the motive behind the first two attempts was the genuine one, and the third version of the display with its assertion of broader educational goals was an attempt to cover up the religious motive with "secular crumble."

The same kind of evidence was not available in *Van Orden,* so the four disapproving justices focused instead on the design of the monument and the lack of any attempt by Texas to integrate the 17 displays on the capitol grounds into any kind of coherent treatment of Texas's legal, political, or social history. Since the context provided no clues about why the monument was there, other than the monument's own content, and since the monument featured the phrase "I AM the LORD thy God" and religious symbols, according to these justices, people looking at the monument would be likely to see it as an endorsement of Judaism and/or Christianity.

Neither of these two views carried the day. Justice Breyer wrote a separate opinion in *Van Orden* in which he rejected the *Lemon* test for borderline cases where government connects itself to a message or symbol with religious content. He saw *Van Orden* as just such a borderline case, requiring him (and his fellow justices) to exercise *legal judgment,* by looking at the entire situation to determine whether there was anything about it that violated the purposes for the First Amendment, which were:

1. To assure the fullest possible scope of religious liberty and tolerance for all;
2. To avoid the public and political divisiveness that often grows out of religious differences; and
3. To maintain "separation of church and state" so that each authority (religious and political) can do the work for which it is best suited.

In *Van Orden,* Breyer thought there was no danger of observers being coerced or unduly influenced toward Judaism or Christianity by the old monument, which had caused so little controversy for so long and which was in a setting that did nothing to reinforce a religious message. But in *McCreary,* Breyer joined the majority opinion declaring the Kentucky displays unconstitutional, presumably persuaded that the history of the projects, with the clear evidence of religious purposes, moved that case out of the borderline region, so no special exercise of judicial judgment was required.

The Current State of the Law on Public Display of Religious Texts or Symbols

The results of the *Van Orden* and *McCreary* cases are instructive from a practical point of view, although not so much from a legal point of view. If a display of objects with religious content is to be attempted, it needs to be justified entirely by secular purposes fitting to the level of government and needs to be carried out consistently with those purposes. A display about a secular topic—such as the history of the development of law or about motives for settling a frontier—can include religious material pertinent to that purpose. So the Ten Commandments could go into a display on the history of the law. Or a diary from a settler expressing thanks for God's protection and commitment to a vision of serving God could be part of a display about frontier life. But these items would have to be justified based on their secular importance, tied to objective evidence

that law draws important inspiration from the Old Testament (a difficult proposition for any individual state's laws, although perhaps not so difficult for the history of human law in general), or that large numbers of pioneers were motivated by religion (in some areas, a very easy case to make). These justifications cannot be added on as afterthoughts as ways to cover up what is really a religious motivation.

The unresolved differences on the Court trouble legal theorists, but they do tend to point remarkably clearly toward a fairly stable range of outcomes. If a government is considering a public display that is worth putting up without the religious symbol or text, and if the religious material is in the display only to make it more accurate (and thus does not overrepresent the role of religious faith in the subject of the display), then it probably would pass constitutional tests.

Nevertheless, it is important to note that the legal theory upon which future courts will judge these cases is still unsettled and even a little messy. Although the twin precedents of *Van Orden* and *McCreary* do go some way toward narrowing the scope of practical uncertainty, they did not clarify the legal definition of unacceptable government behavior in representing or displaying religious faith.

See also **Creationism, Intelligent Design, and Evolution; Prayer in Public Schools**

Further Reading

American Center for Law and Justice, http://www.aclj.org

American Civil Liberties Union, http://www.aclu.org/religion/index.html

Americans United for Separation of Church and State, http://www.au.org

Center for Law and Religious Freedom, http://www.clsnet.org

Dawson Institute for Church-State Studies (Baylor University), http://www.baylor.edu/church_state/splash.php

Dunn, Charles W., ed., *The Future of Religion in American Politics.* Lexington: University Press of Kentucky, 2009.

First Freedom Center, http://www.firstfreedom.org

Fisher, Louis, and David G. Adler, *American Constitutional Law.* Vol. 2, *Constitutional Rights: Civil Rights and Civil Liberties,* 7th ed. Durham: Carolina Academic Press, 2007.

Lane, Frederick S., *The Court and the Cross: The Religious Right's Crusade to Reshape the Supreme Court.* Boston: Beacon Press, 2008.

Nussbaum, Martha Craven, *Liberty of Conscience: In Defense of America's Tradition of Religious Equality.* New York: Basic Books, 2008.

O'Brien, David M., *Constitutional Law and Politics.* Vol. 2, *Civil Rights and Civil Liberties.* New York: W. W. Norton, 2005 (especially chapter 6).

People for the American Way, http://www.pfaw.org/pfaw

The Rutherford Institute, http://www.rutherford.org

Stark, Rodney, *What Americans Really Believe: New Findings from the Baylor Surveys of Religion.* Waco, TX: Baylor University Press, 2008.

S

SCHOOL CHOICE

Ronald G. Corwin

The term *school choice* refers to programs or initiatives under which parents may select the school to which their child goes. The school choice movement endeavors to expand parents' options. Currently, a number of alternatives are available to most parents both within and outside school districts. Districts provide open enrollment plans, specialized magnet and vocational schools, small schools-within-schools, and locally managed public schools. Of these alternatives, open enrollment, arguably, has been the most controversial.

Open Enrollment Programs

Open enrollment programs allow students to attend any public school in their district or often throughout a state. First enacted in Minnesota in 1988, these programs currently are available in 29 states. However, only 14 percent of children in grades 1 through 12 participate. The low participation can be attributed to the fact that transfer programs threaten the ability of neighborhoods to control who attends their schools. Districts take advantage of loopholes allowing them to refuse students or to set quotas based on space availability and other reasons, and most states do not provide funds for transportation.

Although open enrollment programs may benefit individual students, the schools themselves are left unchanged or in worse condition. In particular, if a small school loses some students, it may need to cut staff and programs and increase class size.

These cuts can prompt still more students to transfer, introducing still another round of cuts.

Independent, Publicly Financed Schools

Notwithstanding a wide range of options available within public school districts, during the past two decades the school choice movement has dramatically evolved into a restless push for publicly financed schools that operate *outside* districts. The quest by parents to be free of district control explains the popularity of education vouchers and various charter schools. In both cases, parents use public tax monies to send their children to self-governing, independent schools that operate without close oversight from local school boards. Most local taxpayers have no say in what happens in such schools. Both charter schools and voucher schools have been promoted on the basis of free market ideologies rooted in claims about market-driven organizations outperforming traditional public school monopolies. In truth, such claims may be premature.

Voucher Schools Compared to Charter Schools

Education vouchers set aside a specified amount of public money that parents may use to pay their child's tuition to a receptive private (or, in a few cases, public) school. Receiving schools are known as *voucher schools.* The private sector is diverse. The Catholic Church enrolls almost half of all private school students. But one in three is in a school affiliated with a wide array of religious organizations and sects, and others are in nonsectarian schools. Most private schools are for elementary students, but some of them are high schools, and many more are combined K–12. Also, private schools are widely dispersed throughout central cities, the urban fringe, and large towns, but one in five is located in a rural area. Few Catholic schools are small (fewer than 50 students), and over one-third are large (300 or more students); this pattern is reversed for nonsectarian schools. One in four private schools serve wealthy, elite families, and the percentage of private schools with poor students is less than half that of public schools. Three-fourths of all private school students are white, but, in one out of five Catholic schools, over half the students come from minority backgrounds. Most Catholic schools have some students who qualify for subsidized meals, but other private schools are much less likely to have such students. Private schools are far less likely than public schools to enroll students with limited English proficiency.

Charter schools are publicly funded, tuition-free, nonsectarian public schools that have been released from many of the laws and rules that govern school districts, including, for example, rules pertaining to teacher qualifications, curriculum, and calendar. Funds allocated to the school district follow the student to the charter school. Like private schools, they are also very diverse. About three-quarters of charter schools nationwide are new start ups; most of the others are existing public schools that have converted to charter status. In practice, many charter schools are indistinguishable from other public

schools. However, they are expected to take innovative approaches likely to improve student achievement. And some do. In fact, some charters are runaway mavericks, while others feature distinctive and sometimes controversial Waldorf, Montessori, or "back-to-basics" approaches. Still others are not schools in the usual sense. Nearly one-third of them are not classroom based. Eight percent operate as home schools, others are classified as independent-study schools, and several dozen online cyber-charters have no visible physical boundaries or school buildings. There are even some charter *districts* that have converted all of their schools to charters.

Control of Charter Schools

Depending on the state, charters can be launched by parents, educators, community members, state universities, private firms, or any entity designated by the state. Charter schools are managed by their own governing boards, and most are legally independent. Eleven states grant them independence outright, and eight others permit them to be independent. The 20 states that require their charters to operate as part of a school district account for about one-fifth of the nation's 3,600 charter schools. Their legal status notwithstanding, as conceived, charter schools are supposed to operate autonomously, although their actual freedom varies widely in practice.

Authorized by state statutes, charter schools operate under a contract with an overseeing chartering agency. Over three-fourths of all charters are sponsored by local school boards. In addition, intermediate, county and state boards of education, as well as state education agencies, universities, and colleges sometimes act as sponsors. Sponsors approve long-term contracts. Theoretically, they can also revoke or refuse to renew contracts, but in practice a sponsor's actual control over schools varies enormously. Adding to the ambiguity, several states require each school to negotiate with the sponsor over which decisions it is permitted to control, and the outcomes of these negotiations are not always clear. It does seem clear, though, that many charter schools are precariously straddling a bewildering paradox as autonomous, often legally independent schools, physically located within school districts that are responsible for them but not permitted or inclined to interfere with them.

Selectivity in Charter Schools

Unlike private schools, which select students, charter schools are legally required to accept students who apply, provided there is space and provided the child meets criteria that may be mandated by the states or set by the school. However, in practice, charter schools are not available to most students because of mandates and because of official and informal policies. Often charter schools give priority to local neighborhood children, either by mandate or by policy. Some states limit enrollment to low-income or low-achieving students. Most charter schools say they are oversubscribed, in which case they are allowed to select students randomly or from first-served waiting lists.

Some charters target recruiting practices to preferred types of families, some have formal or informal admission criteria (including recommendations, academic records, tests, or aptitudes), others counsel out the less preferred individuals, and many expel difficult students. Just how frequently charters use these informal practices is difficult to document. Most schools deny having any special admission requirements, but one in four charters admit to them. Many others require applications and interviews. Moreover, a large percentage of charters require or expect parents to work on behalf of the school as a condition for admission. While that may seem like a good idea, parent contracts exclude families that are unable to participate or choose not to participate. Given this arsenal of available exclusionary techniques, the admission practices of charters and voucher schools are not as divergent as they appear on the surface.

Historical Roots of the School Choice Movement

The school choice movement has been explained and justified in at least three ways:

1. White-flight parents, seeking to escape desegregation programs mandated under the 1954 *Brown v. Board of Education* decision, enrolled their children in private schools, which in turn created a demand for publicly financed vouchers.
2. Reformers advocated government-financed schools that would provide options for low-income minority parents dissatisfied with their children's assigned public school. Some voucher programs and charter schools have been reserved for minorities, while some others are required to maintain some form of racial and/or income balance. However, the aggregate national data showing that charters enroll a high percentage of minorities are misleading. State-by-state data show that a few charters have an abundance of minorities, but most enroll only a handful of minority students.
3. Some reformers have succeeded in convincing politicians to support vouchers and charter schools under the implausible promise that competition from independent publicly financed schools will force public schools to reform in order to retain students.

Just one year after the *Brown* decision, the Nobel Prize–winning economist Milton Friedman introduced a plan to give parents public money they could use to enroll their children in any receptive private or public school of their choice. But it was not until 1990 that Milwaukee, Wisconsin, used vouchers and tax credits to create the nation's first publicly financed urban school choice program. The school choice ideology got a substantial boost in the early 1990s as frustrated parents realized that school districts were incapable of meeting their needs. Critics were quick to cite low test scores, high dropout rates, overcrowding, and other negative statistics as evidence that traditional schools were failing to prepare the literate, skilled workers needed in a specialized, technological

world marketplace. Frustrated parents, the critics argued, started looking for options, and independent choice schools emerged to do the job.

Criticisms of Bureaucracy

The problems often have been blamed on intractable bureaucracy and uncaring officials. But bureaucracy is not primarily responsible for the shortcomings of school districts. There were awesome societal forces beyond their control, including immigration, higher retention rates, and urbanization, all of which produced mammoth schools unable to meet personal circumstances. This society did not—or maybe could not—provide the resources and leadership that districts needed to cope with the drastic social changes that swept over them. In any case, frustration with bureaucracy does not account for why choice advocates pushed to make choice schools independent from public school districts. They said public educators were incapable of changing and too often were uninterested in doing so. Yet, in the early 1990s, even as vouchers and charters were being vigorously promoted, social conditions were already forcing school districts to adapt. They were ripe for sweeping internal reforms and were in fact experimenting with a host of reforms.

It was not necessary to force parents to leave school districts to give them viable choices. Choice advocates could have chosen to use their clout to push for choices within school districts. Instead, they chose to press for independent schools operating outside districts. Why? The short answer is that a nationwide ideological movement, which took hold starting in the 1950s, had gained momentum. This so-called laissez-faire movement called for the privatization of almost every commodity and service in the public sector. School choice advocates hitched their ideological wagon to a questionable free-market dream.

The Impetus for Charter Schools

Charter schools entered the picture in the early 1990s as a derivative of the voucher concept and, just as importantly, as a competitive alternative to school vouchers. For example, in 1993, California voucher activists placed a public initiative on the ballot to assess the voters' interest in school vouchers. Their opponents felt compelled to give the public another way to regain control over the way their children were taught. The compromise was legislation authorizing charter schools to form. There seems little doubt that the promise of charter schools helped defeat the 1994 California voucher initiative. However, the charter school concept itself had become tainted by close association with private school vouchers, which in turn caused the school establishment to turn its back on charter schools. To meet the objections of educators, the California legislature imposed compromises, including caps on the number of charter schools that could be created.

Are Choice Schools Better Than Regular Schools?

In exchange for being released from most rules, charter schools are supposed to be more accountable than other schools, a provision that supposedly includes closing schools that fail to perform adequately. There are two types of accountability criteria: market and contractual. *Market accountability* means that a choice school must sustain adequate levels of enrollment. Voucher schools are subject to this type of accountability. *Contractual accountability* means that the school must fulfill a contract with sponsors under terms set by state legislation, which can include stipulations about meeting student achievement goals. Charter schools are subject to both forms of accountability.

In practice, both are problematic. Market accountability provides no assurance that a school is providing a sound education and operating legally. Contractual obligations, especially those pertaining to student achievement, are difficult for understaffed agencies to monitor or measure. Consequently, few charter schools have been closed for failure to produce good results. At the same time, more than 400 have been closed for fraud and mismanagement, and there are probably many others that have not been caught or sanctioned. Corruption and negligence are the unspoken downside of independence.

Charter schools, and even private schools that accept vouchers, were presented to the public as a way to improve student achievement. The bargain was *better outcomes in exchange for deregulation and independence.* In particular, it was understood that if charter schools could not demonstrate improved student achievement, they would be shut down. In addition, some advocates convinced legislatures that competition from charter schools would force public schools to improve. The preponderance of evidence has not supported either claim. Yet both programs remain strongly entrenched in state and federal budgets, sometimes because they are promoted by passionate advocates making claims based on trivial differences and wildly inconsistent data.

The Vast Gap between the Claims and the Evidence

Advocates say that:

- Choice schools lead to higher levels of learning.
- No study points to substantially poorer performance of choice schools.
- There is a surprising consensus among studies showing students enrolled in choice programs benefit academically.
- Data showing charter school students do worse on national tests than other students are baseless.
- Fourth-grade school students across the nation are more proficient in reading and math than students in nearby public schools.
- Competition from a few independent schools produces improved test scores among students in regular schools.

- Competition from charter schools is the best way to motivate the ossified bureaucracies governing education.
- Charters are reinventing public education.

In contrast, however, various researchers have concluded that:

- Student achievement in general has not been positively enhanced by charter schools.
- Some studies comparing charter schools and regular schools suggest a positive impact and others a neutral or negative impact.
- The majority of charter schools have failed to raise, and sometimes have lowered, student achievement compared to regular public schools in the same area.
- With some notable exceptions, charter schools are remarkably similar to regular schools.
- Charter schools are not doing anything regular schools wish to emulate.
- There is little going on in charter schools that merits the attention of anyone seeking powerful ways to engage children and youth in learning.
- Innovation in curriculum and instruction is virtually nonexistent in charter schools.
- Charter schools have produced no convincing data to illustrate that, on the whole, they are prudent or productive investments.

Further confounding the picture, some researchers overstate the implications from the data and, in some cases, distort the data themselves. For example, comparing a sample of charters with nearby regular schools, one researcher claims to have found a 3 percent difference in math proficiency and a 5 percent difference in reading, which she believes is significant (Hoxby 2004). Not only are the differences relatively small, but they were inflated because the author excluded the lowest-performing charter school students because they attended schools serving at-risk students, who the author supposes are not comparable to students in nearby public schools—even though a large portion of most public schools enroll the same type of student. Moreover, the study was represented as a national study when, in fact, the schools included represented only one-third of existing charter schools, and the students included account for fewer than 12 percent of charter school students.

Diversity of Outcomes

So, are choice schools superior? It is obvious that advocates on both sides of the question are arguing over inconsistent and often trivial differences. The rancorous ongoing debate only confirms that studies have not substantiated the overblown claim that choice schools are out-performing regular schools in meaningful ways. At best, the picture is mixed. It could not be otherwise given the diversity of choice schools. They

take too many different forms to be treated as a meaningful unit that can be sensibly compared to conventional public schools—which of course also differ widely among themselves. Choice schools are not comparable either in programs or in students' qualifications and therefore cannot be held accountable to common measures. The only thing charter schools have in common is their legal form—which is to say, the charter that authorizes someone to start a school. And the only salient feature the more than 7,000 private schools share is their nonpublic standing.

Is Competition Reforming Regular Public Schools?

What about the claim that competition from choice schools is causing school districts to improve? The short answer is that it probably is not happening. Reason suggests that schools will sometimes take notice when they start losing enough students and money. However, the research has not identified where that might happen, how big the loss must be, how much competition it takes, or what actions schools will take to improve student outcomes. This research has been plagued by defective analyses, including: inflating the significance of small differences, incorrectly aggregating individual scores to meaningless levels of abstraction, preoccupation with averages that obscure variation, and failure to identify where competition does and does not have an effect.

A few schools in a district are probably not going to provide real competition, and they certainly are not going to assure that regular schools will miraculously improve. Improvement takes leadership, skills, and resources—none of which is guaranteed by competition. On the contrary, competition can have a corrosive effect by draining off resources. Ultimately, competition might only cause schools to flail blindly without direction.

Problems with the Research on School Achievement

Using classroom tests to compare samples of schools is inappropriate for the following reasons.

Hazards of Aggregating Test Scores of Individuals to Schools

The idea that the success of a national program can be assessed with standardized tests comes from an obsolete industrial model that treats schools as factories processing students as raw materials—with average test scores reflecting the quality of the product. However, in the first place, a school does not control most of the so-called production process. The way students perform on tests depends on many extraneous forces, such as language proficiency, family structure, parental guidance, peer group influences, job and travel experiences, and the like. More importantly, standardized tests are constructed to maximize differences among *individuals* and so are inappropriate measures of higher-level *organizational units* like schools, school districts, and programs. The greater the

variance among individuals at the classroom level, the smaller the differences become when their scores are used to represent schools, districts, or states.

Fallacies of Statistical Averages

Reporting averages that compare schools, programs, or states can mislead parents who are trying to find a suitable school for their children. Studies typically pool all included charter schools, across all classrooms, districts, and states represented, and then report the mean for that pool, without breaking out important differences among various types of schools and without taking into account the range of scores. *Within a school,* many students could be doing poorly even if the mean score reflects well on the school. For example, a school can increase its average score even when the students who improve are the ones in the upper part of the distribution. And *among diverse schools, districts, and programs,* mean scores only obscure the critical differences among them. Statistical means do not, for example, reveal the facts that many public schools are as good as private schools and that students who attend the best public schools outperform most private school students.

Given the enormous differences among both choice schools and regular schools, averages and other measures of central tendency are not only meaningless but also deceptive. Suppose that charter schools within a state or within a school district have higher average scores than regular public schools. That signifies only that some are better; but some may be worse. The question is how many are better? It is always possible that a few schools are pulling up the average, masking the poor performance of most other schools. What is most critical is the percentage of schools in the top, middle, and bottom of the distribution of charter schools and how those percentages compare with the distribution of public schools. Those distributions are seldom reported, and, consequently, parents have no way to assess the risk they are taking in sending their child to a charter school, even when average scores in the area are relatively favorable.

Implications of the Research

Putting aside inflated claims on both sides of the question, the only reasonable conclusion that can be justified by the evidence so far is this: even if some students are marginally better off in choice schools, the differences appear small and inconsistent enough that it does not make much difference, causing some to question why massive federal and state programs in favor of choice schools are in place. The fact that *some* choice schools may be good, even exceptional, is little comfort for parents who must make decisions about whether to risk sending their children to a *particular* school. Given the wide differences among schools, the risk is high. For parents, average scores are not helpful. They need better information. However, rather than sorting it out, researchers report only averages and then incorrectly aggregate data collected from individuals in classrooms to the levels of districts, states, and programs. Standardized test scores were not

constructed for the purpose of comparing diverse types of schools or other macro units like school districts and states.

Conclusion

While independence from school districts has been vaunted as a solution to the problems confronting public schools, as things stand, independence appears to be a counterproductive dead-end. Autonomous schools are products of random market forces. There is no guarantee that they will locate where the need is greatest, or be well designed and able to meet the most challenging problems. Further, there appears to be no perceptible difference between many charters and regular public schools. And many charter schools seem to abuse their freedom, while many others are struggling to survive. In the name of independence, some students are being shortchanged with watered-down versions of comprehensive school programs, sitting in substandard buildings and facilities, being taught by inexperienced and sometimes poorly trained teachers.

This does not mean that there are no excellent choice schools. On the contrary, there are many exceptionally good ones. But there is no compelling evidence for the proposition that schools that operate independently are better than regular schools. And even if it could be shown that independent schools are marginally better, the difference could be explained by the small size of most choice schools or by good teachers, strong parental support, and a host of other reasons unrelated to independence.

The promise that it would be possible to demonstrate across-the-board achievement gains in favor of independent choice schools was impossible from the start, not necessarily because choice schools are inadequate, but because proponents promised too much and certainly more than can be demonstrated with test scores. However, charter schools, and even voucher schools, can be useful, provided they are linked more closely with school districts. For it *is* known that, while some choice schools are floundering, others are performing at least as well as regular schools or in some cases even as well as blue-ribbon public schools. These charter schools could be helpful to school districts if only they were made part of districts rather than being independent of them. The school choice debate artificially sets schools against one another when competition is not the solution. School districts need help.

In many conventional schools, unions may control teacher assignments, and, as a consequence, the best teachers are able to avoid the most challenging schools. However, if a district operated its own charters, it could use them strategically to entice good teachers into hard-to-staff schools and to address other districtwide problems, including those associated with at-risk students, English learners, special education students, and others.

See also **Charter Schools; Government Role in Schooling; No Child Left Behind (NCLB)**

Further Reading

Betts, Julian R., and Tom Loveless, eds., *Getting Choice Right: Ensuring Equity and Efficiency in Education Policy.* Washington, DC: Brookings Institution Press, 2005.

Bracey, Gerald W., *The War against America's Schools: Privatizing Schools, Commercializing Education.* Boston: Allyn & Bacon, 2001.

Cookson, Peter W., and Kristina Berger, *Expect Miracles: Charter Schools and the Politics of Hope and Despair.* Boulder, CO: Westview Press, 2003.

Corwin, Ronald G., and E. Joseph Schneider, *The School Choice Hoax: Fixing America's Schools.* Lanham, MD: Rowman & Littlefield, 2007.

Feinberg, Walter, and Christopher Lubienski, *School Choice Policies and Outcomes: Empirical and Philosophical Perspectives.* Albany: State University of New York Press, 2008.

Hoxby, Caroline M., *Achievement in Charter Schools and Regular Public Schools in the United States: Understanding the Differences,* Cambridge, MA: Harvard University and National Bureau of Economic Research, 2004.

Lockwood, A. T., *The Charter School Decade.* Lanham, MD: Scarecrow Press, 2004.

Ravitch, Diane, *Death and Life of Great American School Reform: How Testing and Choice Are Undermining Education.* New York: Basic Books, 2010.

Walberg, Herbert A., *School Choice: The Findings.* Washington, DC: Cato Institute, 2007.

SELF-INJURY AND BODY IMAGE

Margaret Leaf

Self-injury tends to be associated with young women and girls, whereas injuring others is associated with young men and boys. Both behaviors may be understood as forms of gendered violence, directed outward for men and boys and inward for women and girls. While boys learn to act *through* their bodies with physical violence, girls learn to act *on* their bodies with self-inflicted violence.

Background

Adolescence and young adulthood are rife with both physiological transformations (for example, puberty) and social transitions (for example, changing schools, shifting orientation from family to peers) that young people often experience as distressful. However, there is evidence suggesting that the ways people respond to this distress are gendered. Specifically, girls and women are more likely to direct their distress inward, taking it out on themselves, while boys and men are more likely to direct their distress outward, taking it out on others. This can be seen in the higher rates of other-directed violence among boys and young men and higher rates of eating disorders and self-injury among young women.

Of these responses to distress, self-injury has only recently received attention from the media and scientific communities, increasing public attention and debate about the

SELF-INJURY AWARENESS, PREVENTION, AND TREATMENT

Awareness of self-injury is increasing, as evidenced by the movement for a Self Injury Awareness Day, set for March 1 of every year, on which people may promote awareness by wearing an orange ribbon.

As awareness increases, prevention becomes easier. First and foremost, self-injurers may be best served by being listened to and encouraged rather than stigmatized or ignored. Building allies in communities and schools, raising awareness, and promoting a sense of power among young people—particularly young women—are all essential steps toward prevention.

Treatment for self-injury is available in many places, in many forms. The S.A.F.E. (Self-Abuse Finally Ends) program supports a national hotline: 1-800-DONTCUT. There are also many therapists, counselors, and other mental health professionals who specialize in treating self-injury. Visit http://www.selfinjury.com for more information.

topic. First and foremost, these debates center on the definition of self-injury. Currently, most researchers view self-injury as some type of deliberate harm to one's own body without conscious suicidal intent. However, definitions of the behavior vary greatly in terms of social acceptability, severity, and frequency. For example, some researchers include such behaviors as interfering with wound healing (that is, picking at scabs) and nail biting in their definition, while others specify much more severe and stigmatized behaviors such as self-castration and bone breaking. Additionally, some researchers focus on repetitive self-injurious behaviors, such as head banging or self-hitting, particularly among people who are differently abled. Finally, researchers even disagree about what to call the behavior. While *self-injury* is probably the most common term used, other terms include *cutting, deliberate self-harm, self-abuse, self-injurious behavior, self-mutilation,* and *suicidal* or *parasuicidal behavior.*

In addition to disagreement about how to define self-injury, there is also disagreement about who engages in self-injury and how common it is. Estimates of the prevalence of self-injury vary from less than 1 percent to 4 percent in the general population and from 15 percent to 35 percent among adolescent and college-aged samples (Briere and Gil 1998; Favazza 1996; Gratz 2003; Laye-Gindhu and Schonert-Reichl 2005; Whitlock, Powers, and Eckenrode 2006). These differences are mostly due to the fact that there are no nationally representative data on self-injury, so most samples are small or highly specific (for example, students sampled in a university class). Also, while most research has focused on self-injury among white women in the United States, there is a growing body of research on self-injury among other racial groups and in other countries, particularly among Asian women (see Bhardwaj 2001 and

TALKING ABOUT IT: SELF-INJURY ONLINE

A 2006 study by Whitlock, Powers, and Eckenrode identified over 400 online message boards dedicated to the topic of self-injury, with girls and women between the ages of 12 and 20 visiting the boards more than men. The study found that these message boards provide a relatively anonymous forum for self-injurers to share personal stories and problems, voice opinions and ideas, and give and receive support—all of which may be particularly helpful for adolescents and young adults who may have no one else to confide in. However, the study also found that some message boards may encourage self-injury, when, for example, they provide instructions for new self-injury techniques or promote self-injury as a pleasurable, painless behavior.

Marshall and Yazdani 1991 on self-harm among Asian women; Kinyanda, Hjelmeland, and Musisi 2005 on self-harm in Uganda). Additionally, there is some research suggesting that self-injury is more prevalent among gay, lesbian, and bisexual people (Adler and Adler 2005; Alexander and Clare 2004, Whitlock, Powers, and Eckenrode 2006) as well as among prison populations. One of the few consistencies across most studies is that self-injury typically begins during adolescence or young adulthood and tends to persist for an average of 10 to 15 years, though it may continue for decades (Favazza 1996; Muehlenkamp 2005). Some research indicates that self-injury may be likely in some elderly populations, due in part to higher rates of depression and isolation (Dennis et al. 2005).

For the most part, media depictions of self-injury paint it as a uniquely adolescent and female problem, as evidenced by movies such as *Thirteen* and *Girl, Interrupted*, as well as talk shows such as *Oprah* featuring only female guests who self-injure (Brickman 2004). Yet, because there are no nationally representative data on the prevalence of self-injury, it is unclear to what extent women really are likely to self-injure or whether it is a media myth. While a few clinical and community studies have shown that self-injury is as common among men as it is among women (Briere and Gil 1998; Gratz 2003), other studies show that self-injury is less common among men and may be carried out differently among men as well. For example, a study of 2,875 students at Cornell University and Princeton University found that 17 percent had self-injured at some point in their lives, and women were about one and a half times as likely as men to be repeat self-injurers (Whitlock, Powers, and Eckenrode 2006). Additionally, women were more than twice as likely as men to scratch or cut themselves, while men were almost three times as likely as women to punch an object. This difference in the method of injuring reflects a bigger pattern: women and girls may be more likely to act on their bodies—for example, by cutting or scratching themselves with an object—while men and boys may be more likely to act through their bodies by punching someone or something else.

Self-Injury as Gendered Violence

Whether inflicted through punching an object or punching, cutting, scratching, or burning oneself, self-injury can be seen as a form of violence toward oneself and one's body. For instance, James Gilligan (2004, 6) defines violence as

> the infliction of physical injury on a human being by a human being, whether oneself or another, especially when the injury is lethal, but also when it is life-threatening, mutilating, or disabling; and whether it is caused by deliberate, conscious intention or by careless disregard and unconcern for the safety of oneself or others.

This somewhat broad definition of violence differs from more traditional definitions because, although it is limited to physical injury, it includes the act of injuring oneself. Self-injury, according to this definition, is a form of violence, regardless of whether the self-injurer interprets it as such. Self-injury meets all of Gilligan's qualifications: it involves the infliction of physical injury on a human being by a human being (oneself), it is mutilating and sometimes life threatening, and it is done by deliberate, conscious intention. Viewing self-injury as a form of violence allows us to compare it to the other-directed or outward forms of violence more common among men.

James Messerschmidt's study of adolescent boys' violence toward others in *Nine Lives* (2000) is a particularly useful reference. In this book, Messerschmidt considers the social settings—such as family, school, neighborhood, and even one's own body—that influence and are influenced by violence. He also takes an explicitly gendered approach to violence, arguing that social settings also influence and are influenced by gender. In other words, one's family, one's school, and even the larger society (for example, the media) influence how we define masculinity and femininity and how we behave according to these definitions. From this perspective, gender is not just about one's biological male" or female status, but instead it is something that we *do* in everyday social interactions, including how we walk and talk, dress, sit, and eat, and even how we do violence.

In *Nine Lives,* Messerschmidt argues that boys are not violent by nature, but they are more likely to become violent if they have been in social settings that define sexually and/or physically fighting back as the appropriate expression of masculinity or the best way to "be a man." For instance, John, a young man who experienced severe sexual abuse at the hands of his father, learned that "dominating someone sexually" was "what a male just did" (37). On the other side of the coin, Sam came from a nonviolent home but was abused by peers at school because of his body size and shape (short and overweight). Lacking the physical resources to fight back, he instead made up for the masculinity threats at school by sexually assaulting the young girls he babysat. As these cases illustrate, the masculinity "lessons" do not come from just one source but can grow out of any one or more of a variety of settings—family, school, neighborhood, or even one's own body.

Within this framework, self-injury can be seen a form of violence that stems from a variety of social sources. Furthermore, self-injury may be as gendered as other forms of violence. While lessons in masculinity taught the boys in Messerschmidt's study to inflict violence on others, lessons in femininity lead some women (and fewer men) to inflict violence on themselves. Girls and women learn from various social settings—the media, family, school, peers—that they are inferior, and some women and girls take this out on themselves and their bodies (Brown 2003). This self-inflicted violence is manifested in the various body projects women and girls engage in, from restrictive dieting to starving oneself, and from piercing to cutting (Brumberg 1997). Whereas boys learn to act *through* their bodies with physical violence, girls learn to act *on* their bodies with self-inflicted violence.

Control, Body Image, and Societal Messages

Why are girls and women more likely to act *on* their bodies? Some argue that control is at the center of the picture. Like many self-injurers, some of the boys in Messerschmidt's study had been physically, sexually, and/or emotionally abused at home or at school, resulting in a sense of helplessness and lack of control. In turn, they sought and gained a sense of control by physically and sexually assaulting others, often people whom they viewed as weaker (for example, girls and younger boys). But girls and women sometimes view themselves as weaker or inferior as well, and so instead of trying to control those who are more powerful (that is, men), they try to gain control of girls, including themselves. Lyn Mikel Brown (2003), for example, argues that fighting between girls exists in part because of girls' struggle for power, voice, and legitimacy. The limited power to which girls have access often stems from "qualities they either have little control over, don't earn, or openly disdain," such as their bodies and appearance, and so they take their frustration out on each other and themselves (32).

Furthermore, when this search for control is combined with poor body image and self-esteem, it often results in self-harming practices such as extreme dieting and exercise, disordered eating, and self-injury. From a young age, women and girls are bombarded with images of unrealistically thin and beautiful women in the media. Often these images are so airbrushed and digitally altered that even the models themselves do not measure up. These images, along with other social influences, set a standard of femininity that is thin and beautiful, sexy but sweet, yet relatively passive and powerless. One of the few "appropriate" sources of power regularly advertised to girls and women is sexiness through their bodies and appearance. As a result, girls and women sometimes go to great lengths to fit the sexy media image. Because this image is virtually unattainable, their efforts become self-destructive rather than self-enhancing. Adolescent women and girls may be particularly susceptible to this, given the powerlessness they often feel amid the myriad physical, hormonal, and social changes they have to contend

with. While it is difficult, if not impossible, to argue that media images and societal messages directly cause girls and women to engage in self-harming behaviors, they certainly do not help girls and women gain the sense of control and independence they may be seeking.

Conclusion

Although self-injury has only recently received mass media attention, it is not a new problem. People have been self-injuring in cultural and religious rituals, and likely in private as well, for centuries (see Favazza 1996). While the definitions and explanations of self-injury and the responses to it have varied greatly, the practice itself has not changed dramatically: people inflicting violence on themselves without necessarily intending to die. Like violence toward others, violence toward the self results, at least in part, from social surroundings. If boys' and men's violence toward others stems from settings that define fighting back and controlling others as appropriate and valued expressions of masculinity, then perhaps girls' and women's violence toward themselves results from social settings that define fighting back and controlling others as inappropriate. Instead, girls and women are encouraged to control themselves, to be pretty, nice, and quiet, and this results in either turning aggression down—like young girls who learn to lower their voices when fighting—or turning it toward themselves (Brown 2003). Until these messages change, girls and women will continue to find ways to take it out on themselves, with boys and men sometimes taking it out on them too.

See also **Eating Disorders; Mental Health; Marketing to Women and Girls (vol. 1); Sex and Advertising (vol. 1)**

Further Reading

Adler, Patricia A., and Peter Adler, "Self-Injurers as Loners: The Social Organization of Solitary Deviance." *Deviant Behavior* 26 (2005): 345–378.

Alexander, Natasha, and Linda Clare, "You Still Feel Different: The Experience and Meaning of Women's Self-injury in the Context of a Lesbian or Bisexual Identity." *Journal of Community and Applied Social Psychology* 14 (2004): 70–84.

Berman, Jeffrey, and Patricia Hatch Wallace, *Cutting and the Pedagogy of Self-Disclosure.* Amherst: University of Massachusetts Press, 2007.

Bhardwaj, A., "Growing up Young, Asian and Female in Britain: A Report on Self-harm and Suicide." *Feminist Review* 68 (2001): 52–67.

Bordo, Susan, *Unbearable Weight: Feminism, Western Culture, and the Body.* Berkeley: University of California Press, 2004.

Brickman, Barbara J., "'Delicate' Cutters: Gendered Self-Mutilation and Attractive Flesh in Medical Discourse." *Body and Society* 10, no. 4 (2004): 87–111.

Briere, John, and Eliana Gil, "Self-mutilation in Clinical and General Population Samples: Prevalence, Correlates, and Functions." *American Journal of Orthopsychiatry* 68 (1998): 609–620.

Brown, Lyn Mikel, *Girlfighting: Betrayal and Rejection among Girls.* New York: New York University Press, 2003.

Brumberg, Joan Jacobs, *The Body Project: An Intimate History of American Girls.* New York: Random House, 1997.

Dennis, Michael, Penny Wakefield, Caroline Molloy, Harry Andrews, and Trevor Friedman, "Self-harm in Older People with Depression: Comparison of Social Factors, Life Events and Symptoms." *British Journal of Psychiatry* 186 (2005): 538–539.

Favazza, Armando R., *Bodies under Siege: Self-Mutilation and Body Modification in Culture and Psychiatry.* Baltimore: Johns Hopkins University Press, 1996.

Gilligan, James, "How to Think about Violence." In *Violence and Gender: An Interdisciplinary Reader,* ed. P. R. Gilbert and K. K. Eby. Upper Saddle River, NJ: Prentice Hall, 2004.

Gratz, Kim L., "Risk Factors for and Functions of Deliberate Self-Harm: An Empirical and Conceptual Review." *Clinical Psychology: Science and Practice* 10, no. 2 (2003): 192–205.

Groves, Abigail, "Blood on the Walls: Self-Mutilation in Prisons." *Australian and New Zealand Journal of Criminology* 37 (2004): 49–65.

Hodgson, Sarah, "Cutting through the Silence: A Sociological Construction of Self-Injury." *Sociological Inquiry* 74, no. 2 (2004): 162–179.

Kinyanda, Eugene, Heidi Hjelmeland, and Seggane Musisi, "Psychological Factors in Deliberate Self-harm as Seen in an Urban African Population in Uganda: A Case-control Study." *Suicide and Life-Threatening Behavior* 35 (2005): 468–477.

Laye-Gindhu, Aviva, and Kimberly A. Schonert-Reichl, "Nonsuicidal Self-harm among Community Adolescents: Understanding the 'Whats' and 'Whys' of Self-harm." *Journal of Youth and Adolescence* 34 (2005): 447–457.

LifeSIGNS Self-Injury Guidance and Network Support, *Self-Injury Awareness Booklet,* 2d ed., 2005. http://www.selfharm.org/publications/sia/index.html

Marshall, Harriette, and Anjum Yazdani, "Locating Culture in Accounting for Self-harm amongst Asian Young Women." *Journal of Community and Applied Social Psychology* 9 (1999): 413–433.

Messerschmidt, James W., *Nine Lives: Adolescent Masculinities, the Body, and Violence.* Boulder, CO: Westview Press, 2000.

Milia, Diana, *Self-Mutilation and Art Therapy: Violent Creation.* London: Jessica Kingsley, 2000.

Miller, Dusty, *Women Who Hurt Themselves.* New York: Basic Books/HarperCollins, 1994.

Muehlenkamp, Jennifer J., "Self-Injurious Behavior as a Separate Clinical Syndrome." *American Journal of Orthopsychiatry* 75, no. 2 (2005): 324–333.

Nixon, Mary K., and Nancy L. Heath, eds., *Self-Injury in Youth: The Essential Guide to Assessment and Intervention.* New York: Routledge, 2009.

S.A.F.E. Alternatives, "Self Abuse Finally Ends." 2010. http://www.selfinjury.com

Strong, Marilee, *A Bright Red Scream: Self-Mutilation and the Language of Pain.* New York: Penguin, 1998.

Whitlock, J. L., J. E. Eckenrode, and D. Silverman, "The Epidemiology of Self-Injurious Behavior in a College Population." *Pediatrics* 117 (2006): 1939–1949.

Whitlock, Janis L., Jane L. Powers, and John Eckenrode, "The Virtual Cutting Edge: The Internet and Adolescent Self-Injury." *Developmental Psychology* 42 (2006): 407–417.

SHOCK JOCKS, OR ROGUE TALK RADIO

David Sanjek

The emotional persuasiveness of person-to-person communication over the radio has been evident since the birth of the medium. Something about a voice emanating out of the very air commands an audience's attention. Many radio personalities have employed that power without any thought to pushing the envelope of acceptable speech, while others have engaged in questioning their limits almost without license. When does public speech possibly pollute the airwaves, and has the very medium itself been shocking audiences, in one way or another, throughout its history?

The term *shock jock* has come into vogue as a shorthand designation for a radio personality who uses the power of his or her microphone to either rile up or titillate the audience. One can distinguish between two types of shock jocks. First are those with an ideological axe to grind who ridicule if not ravage the views of their opponents. The currently most popular of those figures (Rush Limbaugh, Michael Savage) tend to be conservative in their politics, although those in opposition to their positions attempted to establish a beachhead, the Air America network (2004–2010), to counter their preeminence on the dial. The second type of shock jock appeals to listeners through either disregarding or intentionally deflating the rules of publicly permissible speech as propounded by the Federal Communications Commission (FCC). The currently most popular of those figures (Howard Stern, Opie and Anthony) litter their broadcasts with sexual innuendo and, on occasion, outright obscenity. The ultimate aim of both camps, admittedly, comes down to ratings and the maximization of their share of the audience; yet, in some cases, shock jocks act in a deliberate manner in order to convince the public to adopt their positions and act upon them in such a way as to influence public life.

Radio as a Shocking Medium

While contemporary shock jocks engage in a form of extreme public speech not heard by past generations over the airwaves, the very medium of radio has possessed a capacity to shock since its very beginning. Admittedly, audiences accepted and accommodated radio as a form of public communication in relatively short order after the first national broadcast by the RCA network in 1921. However, we should recall that each consumer invites the participation of others into their lives by choice. In its essence, radio can be thought of as a kind of desired or designated intrusion, a fact that was authoritatively demonstrated in recent times by the excessive amplification of boom boxes. Once radios became reasonably affordable, around 1927, the technology came to be thought of as a kind of acoustic hearth, though audiences expected those who entertained them to wipe their shoes, so to speak, before they crossed the threshold of their homes.

This desire not to be disturbed or dismayed by what was broadcast over the air particularly applied to announcers and later disc jockeys—the predecessors to and, in some

cases, influences upon present-day shock jocks. On-air personalities received considerable leeway to display the full range of their idiosyncrasies, but announcers were expected to be virtually invisible and extinguish any quirks from their personalities. Some compared the phenomenon of their voices to God, as they came invisibly out of the very air, and they were expected, like the deity, to promote and not abuse community standards.

Rockin' Is Our Business

This trend began to change with the emergence of the disc jockey, a position that, while not inaugurated by Martin Block and his show *Make Believe Ballroom* in 1934, is by many associated with him as its originator. He gave a name and defined personality to a figure that heretofore remained anonymous, even if the music he played was the audience-friendly pop tunes of the day. Disc jockeys adopted an even more colorful role with the emergence of rhythm and blues and subsequently rock and roll in the 1940s and 1950s. They broke the moderate mold not only by the type of music they played but also, and more importantly, through the manner with which they presented it. Individuals like Hunter Hancock of Los Angeles, the black announcers on Memphis's WDIA (Nat Williams and Rufus Thomas), and most famously Alan Freed of Cleveland and later New York injected a more raucous tone to their position. They concocted idiosyncratic vocabularies, solicited the opinions of their teenage listeners, and enthusiastically advocated the music they played. Even now, tapes of their broadcasts retain a vibrancy and audacity that time has not erased.

Many parents and some politicians feared the power these men held over their children and worried that the repertoire they featured threatened the very fabric of society. Some less open-minded citizens even called attention to and chastised the disc jockeys for playing music that they felt encouraged racial integration. When government investigations called attention to the fact that many of these men accepted payments for records they played, known at the time as payola, hearings were held in Washington and some careers ended, Freed's most notably. The furor that followed toned down the audacity of the disc jockeys, as less threatening figures, like *American Bandstand*'s Dick Clark, adopted a posture that parents found acceptable. Nonetheless, the transformation of the on-air announcer from a virtual nonentity to an audacious individual with a definite personality was complete.

Voices in the Night

Some individuals saw in radio the opportunity to speak, person to person, through a microphone and conceived of their broadcasts as a sphere of self-expression. None, perhaps, succeeded more in shocking portions of the public with his adoption of the airwaves as a kind of personal podium than Jean Shepherd. It was not that he had a polemical axe to grind, but, instead, Shepherd thought of the medium as a means for transforming the

minds of his listeners toward a more imaginative, even anarchic way of thinking. Some think that Shepherd single-handedly invented talk radio, even though his antics had their predecessors, like Los Angeles's Jim Hawthorne, who from the 1940s to the 1960s played records backward and invited listeners to call in, only to hold his receiver up to the microphone and allow them to address the audience at large. Shepherd started his pioneering broadcasts on New York's WOR in 1955. Much of the time, he engaged in a kind of storytelling about his youth that one hears today in the monologues of Garrison Keillor about Lake Wobegon. (The popular film *A Christmas Story* [1983] adapts Shepherd's work and employs him as its narrator.) He also would sometimes solicit his listeners to engage in group actions that bear a surprising resemblance to the contemporary phenomenon of flash mobs; he would announce a time and place for them to meet and engage in some spirited action, a practice he called "the Milling." Other times, he urged them to throw open their windows and shout slogans to the open air, something like the broadcaster Howard Beale in the film *Network* (1976). Station owners and some listeners found Shepherd disturbing as he not only broke conventions but also refused to bend to preconceived formats. His ultimate aim, he stated, was to combat "creeping meatballism," a poetic phrase for objectionable forms of conformity.

Exploding the Playlist

If Shepherd shocked some by treating his broadcasts as a kind of public conversation, then the advocates of free-form radio in the 1960s triggered equally aggressive responses by expanding, if not exploding, the barriers that existed as to what kind of material, either music or speech, might be broadcast. Most disc jockeys were cobbled by playlists dictated by management and exercised little to no influence over their choices. Even if they did, their shows were routinely defined by particular genres of expression. It was considered unfashionable to mix disparate styles; rock was kept apart from country, or rhythm and blues from concert music. The airwaves were, in effect, ghettoized, with little intermingling of material. Correspondingly, audiences tended to associate themselves with distinct bodies of sound and self-censored what they did not want to hear.

This straightjacket upon the repertoire presented on radio was removed in large part by the practices advocated by the San Francisco–based disc jockey Tom Donahue. A veteran of a number of markets, Donahue quit KYA in 1965 when controls over his material reached the breaking point. He turned instead to the newly emerging technology of FM and the opportunity presented by the troubled station KMPX to initiate a new approach. Starting in 1967, Donahue exhorted his fellow disc jockeys to play the kind of music they would for their friends and disregard any form of niche thinking. The result was a kind of sonic smorgasbord that paralleled the mashing together of forms of expression that could be heard in the city's premier music venues at the time: the Fillmore West and the Avalon Ballroom. Donahue encouraged his news staff to adopt a similarly unorthodox stance, and it resulted in what the news director, Scoop Nisker,

characterized as "the only news you can dance to." Other stations, particularly on the FM bandwidth, followed Donahue's lead. Much as audiences appreciated the transformation, the radicalization of radio staff dismayed the owners of KMPX. They objected to the spillover of anarchy from the airwaves to the office spaces. This led to a strike, and, eventually, Donahue's migration to KSAN. Free-form radio itself eventually fell prey to the segmentation that affected U.S. society as a whole, when the antiwar movement and the counterculture of the 1960s collided with the self-involvement of the following decade. Many, if not most, radio stations returned to a predetermined and circumscribed playlist, yet for many the shock of hearing such a wide array of sounds remains one of the high points of the radio medium.

Seven Dirty Words

Donahue's expansion of the forms of expression included on radio drew upon certain programming practices of the noncommercial network known as the Pacifica Foundation. A group of stations in New York, Los Angeles, Washington, DC, Berkeley, and Houston, the foundation was founded by Lewis Hill in 1949. The inaugural signal, KPFA in Berkeley, initiated the organization's commitment to spurning advertising as well as government or corporate support, and to permitting free speech over its airwaves. Over the years, the organization has assimilated any number of points of view and styles of presentation, some of which resemble the first-person mode of Jean Shepherd (Bob Fass's "Radio Unnameable," heard on New York's WBAI) while others promote specific segments of the political or social spectrum, though customarily from a left-of-center perspective. Many listeners, should they chance upon a Pacifica station by accident, would be shocked and find the range of voices a virtual cacophony, the adoption of off-center ideologies strident in the extreme. Faithful consumers, however, regard Pacifica as the lone exception to the medium's virtual expulsion of radical perspectives and acceptance if not promotion of the almighty dollar.

The most shocking element of Pacifica's history and a groundbreaking influence upon what kind of speech could be aired occurred when WBAI broadcast an infamous track, "Seven Words You Can Never Say on Television," from comedian George Carlin's 1972 *Class Clown.* (A routine featured on Carlin's subsequent album, *Occupation: Foole* [1973], covered much of the same material.) This list of commonly used expletives was perhaps not officially prohibited from radio, yet a complaint to the FCC was made by a father who heard the track with his son. The FCC did not reprimand WBAI but put the station on notice that, "in the event subsequent complaints were received, the Commission will then decide whether it should utilize any of the available sanctions it has been granted by Congress." Pacifica appealed the notice, which was overturned by the Court of Appeals. The FCC brought the matter to the Supreme Court, which came down in favor of the FCC in 1978. This decision codified indecency regulation in U.S. broadcasting. Even though subsequent rulings amended its dictates, such as the

SHOCK-JOCK POLITICS

Depending upon one's perspective, whether any individual amounts to a shock jock depends upon where one stands in the political spectrum. For those on the right, Rush Limbaugh speaks truth to power; for those on the left, Rachel Maddow (now a television host as well) holds those who wield power inappropriately to the fire of necessary criticism. Nonetheless, sometimes individuals are hired and promoted to the public as fair and polite when even a cursory investigation of their public activities reveals that they are partisan in the extreme.

Take the hiring by CNN Headline News in January 2006 of Glenn Beck to host a one-hour prime-time talk show. The president of the network, Ken Jautz, describes Beck as follows: "Glenn's style is self-deprecating, cordial; he says he'd like to be able to disagree with guests and part as friends. It's conversational, not confrontational." However, when one consults Beck's comments on the air prior to his hiring, they do not come across as either civil or conversational. They seem little more than one-sided invective. For example, he apparently so loathes the antiwar politician Dennis Kucinich that he stated in 2003, "Every night I get down on my knees and pray that Dennis Kucinich will burst into flames." The next year, he crossed the line even more emphatically when he characterized Michael Berg, the father whose son was beheaded in Iraq, as "despicable" and a "scumbag" because he deigned to criticize President George W. Bush.

Perhaps the most indefensible, if not alarmingly over-the-top, comment from Beck came in his attack on the filmmaker Michael Moore. In 2005, he mused on the air about killing him: "I'm thinking about killing Michael Moore, and I'm wondering if I could kill him myself, or if I would need to hire someone to do it. No, I think I could. I think he could be looking me in the eye, you know, and I could just be choking the life out—is this wrong?"

It remains a quandary what is more disturbing: that CNN would hire and defend a man who makes these kinds of statements or whether he was being anything other than disingenuous when he inquired of his audience if his sentiments were over the top?

provision that some questionable speech is permissible if children are not part of the audience, the decision holds to this day. There remains a window of opportunity for shocking language between the hours of 10:00 P.M. and 6:00 A.M., but, otherwise, none of the seven dirty words should pass the lips of anyone heard over the air during the course of the rest of the day.

Can They Say That?

The jumping-off point for the present-day profusion of shock jocks is hard to isolate. Nonetheless, it remains clear that, while the announcer on WBAI took the words out of George Carlin's mouth, these current performers do not achieve any of their audacity secondhand. It is also important to stress how virtually all of them emerged from more

mainstream broadcasting as disc jockeys as well as how much they acknowledge their debt to and the influence of on-air personalities from the past, like Jean Shepherd. Some may as well have watched, or even been fans of, two short-lived television figures who virtually broke through the third wall of the screen, so vehement were their opinions: Joe Pyne and Alan Burke. Pyne broadcast a syndicated show from Los Angeles from 1965 until his untimely death from cancer in 1970; Burke appeared in New York City from 1966 to 1968 and turned to Miami-based radio during the 1970s and 1980s. It may seem more than a bit of a leap from the "Shut up, creep!" of Pyne and Burke to the outright obscenity of the current shock jocks, but a lineage between the two certifiably exists.

Other legal and institutional factors contributed to the emergence of the shock jocks. During the course of the Reagan administration, the FCC began to lean less heavily on the regulatory throttle, in particular so far as station ownership was concerned. More and more entities were brought up by broadcasting conglomerates, such as Clear Channel, and owners sought formats that could appeal across broad geographical and ideological segments of the population. Sexual innuendo, frat-boy shenanigans, and spirited diatribes against one's opponents fit the bill. Also, the regulations regarding the need for all sides of an issue to be publicly aired became trimmed, so that the aggressive defense of polemical positions did not require any counterpointed alternative. The adoption of the airwaves as a personal soapbox therefore acquired the sanction of both the law and the corporate bottom line.

Don Imus unleashed his loose cannon on WNBC in New York City in 1971; Howard Stern joined him there in 1982; Rush Limbaugh began his career in 1984 in Sacramento, California; Michael Savage unleashed his vitriol over San Francisco's KGO in 1994. While all four of them commonly stretch the boundaries of taste and legally protected speech, each operates under his own agenda. Stern, the "King of All Media," aims to goose the adolescent mentality of listeners any way he can; Imus oscillates between the outrageous and the ideological, maintaining a need both to crack a crude joke and tweak the sensibilities of those he considers unwise or effete; Limbaugh engages his loyal listeners as a virtual cheerleader for their common conservative social and political philosophy; and Savage savages that which he dislikes with an acid tongue and the utter conviction of a true believer. All four men have also successfully engaged in media other than radio, publishing books and appearing in films or on recordings. Each maintains a loyal and considerable following as well as receives some of the highest salaries in broadcasting.

None of them continue, however, without opposition or outcry. The phenomenon of the shock jock certainly has been a mainstay of columnists and op-ed writers for some time, and many individuals need only the slightest provocation to bang the drum about these men's latest foolhardiness or faux pas. Most notably, the comedian Al Franken published a best-seller, *Rush Limbaugh Is a Big Fat Idiot,* in 1996 and subsequently achieved his own on-air slot with Air America as a proponent of the liberal opposition. At the

same time, sanctions of a more serious nature have been threatened against shock jocks. Stern in particular tussled repeatedly with the FCC, and some feel that part of the reason he signed up with the satellite system Sirius radio in 2006 was to circumvent the restrictions applied to terrestrial broadcasting. For the most part, broadcasters continue in their established modes of calculated offense, engaging their fans as broadcasting's bad boys and shocking their detractors as near-criminal abusers of the public airwaves.

Crash and Burn

The phenomenon of shock jocks in general, and Don Imus in particular, occupied a brief but heated news cycle in April 2007. For years, Imus committed and subsequently apologized for a number of definitely offensive and debatably funny comments that amounted to little more than sophomoric exercises in sexism and racism. From referring to the African American journalist Gwen Ifill as a "cleaning lady" to characterizing Arabs as "ragheads" to denigrating the African American sports columnist Bill Rhoden as a "*New York Times* quota hire," Imus has engaged for years in a free-for-all of invective. While one might argue that these comments amount to protected speech in the service of comedy, albeit a fairly sophomoric category of comedy, they nonetheless come across as hurtful, possibly hateful, and certainly mean-spirited.

One of the paradoxes of Imus as a personality, however, remains that this schoolyard potty mouth coexists in a kind of Jekyll-Hyde or symbiotic relationship, depending upon one's perspective, with a thoughtful, well-prepared, and consistently intelligent interviewer. Many individuals who frequent Imus's microphones praise him as one of the most astute and committed commentators on the public airwaves; *New York Times* columnist Frank Rich repeated these remarks at the climax of Imus's latest, and most incendiary, collision with the limits of free speech. For years, the program oscillated back and forth between the cerebral and the coarse, and many listeners, and some participants, chose to ignore the elements of that dialogue that offended or bored them.

This process came to a head on April 4, 2007, when Imus and his cohort, Bernard McGuirk, dismissed the Rutgers University women's basketball team as "nappy-headed hos." This was Imus's retort to McGuirk's characterization of the predominantly African American squad as "some hard-core hos." Almost immediately, a torrent of anger ensued, and two days later Imus apologized for the dialogue: "It was completely inappropriate and we can understand why people were offended. Our characterization was thoughtless and stupid, and we are sorry." Imus, however, ratcheted up the anger when he appeared on the Reverend Al Sharpton's radio program on April 9 and referred in passing to some of his critics as "you people." Plans were set in place for him to meet with the team and its coach. However, due to the public anger, loss of sponsors, and complaints from other African American employees at NBC, the network fired Imus and ended *Imus in the Morning* immediately. The meeting with the Rutgers squad proceeded, and their coach reported that the team members did not themselves call for Imus's firing.

Aside from the heat and fury of the moment, the question remains whether Imus's firing will trigger more focused attention upon shock jocks and whether the possibility of censorship will extend to those of a more right-wing persuasion who engage in invective and rancor on as regular a basis as did Imus.

See also **Obscenity and Indecency; Violence and Media; Conglomeration and Media Monopolies (vol. 1)**

Further Reading

Awkward, Michael, *Burying Don Imus: Anatomy of a Scapegoat.* Minneapolis: University of Minnesota Press, 2009.

Colford, Paul, *Howard Stern: King of All Media.* New York: St. Martin's Press, 1996.

Douglas, Susan, *Listening In: Radio and the American Imagination.* Minneapolis: University of Minnesota Press, 2004.

Fisher, Marc, *Something in the Air: Radio, Rock, and the Revolution that Shaped a Generation.* New York: Random House, 2007.

Imus, Don, *God's Other Son.* New York: Simon & Schuster, 1999 [1981].

Jamieson, Kathleen Hall, and Joseph N. Cappella, *Echo Chamber: Rush Limbaugh and the Conservative Media Establishment.* New York: Oxford University Press, 2008.

Laser, Matthew, *Uneasy Listening: Pacifica Radio's Civil War.* London: Germinal Productions and Black Apollo Books, 2006;

Laser, Matthew, *Pacifica Radio: The Rise of an Alternative Network,* rev. ed. Philadelphia: Temple University Press, 2000.

Limbaugh, Rush, *The Way Things Ought To Be.* New York: Pocket Books, 1992.

Milbank, Dana, *Tears of a Clown: Glenn Beck and the Tea Bagging of America.* New York: Doubleday, 2010.

O'Connor, Rory, *Shock Jocks: Hate Speech and Talk Radio: America's Ten Worst Hate Talkers and the Progressive Alternatives.* San Francisco: AlterNet Books, 2008.

Savage, Michael, *The Political Zoo.* Nashville: Nelson Current, 2006.

Shepard, Jean, *In God We Trust: All Others Pay Cash.* New York: Doubleday, 1966.

Shepard, Jean, *Wanda Hickey's Night of Golden Memories and Other Disasters.* New York: Doubleday, 1976.

Stern, Howard, *Private Parts.* New York: Simon & Schuster, 1993.

Walker, Jesse, *Rebels on the Air: An Alternative History of Radio in America.* New York: New York University Press, 2001.

STANDARDIZED TESTING

Sandra Mathison

Standardized tests are administered under standard conditions, scored in a standard way, and result in quantifiable results; they can include multiple choice or performance-based questions (like essays); and, while usually administered to groups, they may also be

individually administered. Standardized tests are used in schools for a variety of reasons (to determine the achievement or aptitude of individual students; to evaluate programs and curricula for improvement; to hold schools accountable), and they may be either low stakes (that is, having no or low-level rewards and consequences) or high stakes (that is, having serious consequences attached to the scores).

Standardized testing in schools has always been controversial. The controversy centers on the uses and misuses of the tests; cultural, class, and gender biases in the tests; whether they are benign or have a negative effect on those who take them; and whether they are a good indicator of the quality of learning or schools. Standardized tests have both the promise to reward merit and the reality of advantaging the already advantaged; the means

TIMELINE OF STANDARDIZED TESTING EVENTS

- 1845: Administration of the Boston Survey, the first known written examination of student achievement.
- 1895: Joseph Rice developed common written tests to assess spelling achievement in Boston schools.
- 1900–1920: Major test publishers are created: The College Board, Houghton-Mifflin, Psychological Corporation, California Testing Bureau (now CTBS), and World Book open for business.
- 1901: The first common college entrance examinations are administered.
- 1905: Alfred Binet and Theodore Simon develop the Binet-Simon Scale, an individually administered test of intelligence.
- 1914: Frederick Kelly invents the multiple choice question.
- 1916: Louis Terman develops a U.S. version of the Binet-Simon Scale, which becomes a widely used individual intelligence test, and he develops the common concept of the intelligence quotient (or IQ).
- 1917: Army Alpha and Beta tests are developed by Robert Yerkes, then president of the American Psychological Association, to efficiently separate potential officers from soldiers as the United States entered World War I.
- 1926: The Scholastic Aptitude Test (SAT), adapted directly from the Army Alpha Test, is first administered.
- 1955: The high-speed optical scanner is invented.
- 1970: The National Assessment of Educational Progress is created.
- 1980s: Computer-based testing is developed.
- 2001: No Child Left Behind is signed into law, reauthorizing the Elementary and Secondary Education Act, and using student achievement test scores to hold schools accountable.
- 2009: Race to the Top, a federal program designed, in part, to emend No Child Left Behind, is launched; by mid-2010, 27 states have implemented new math and English standards based on the program's recommendations.

to overcome racism and a source or racism; and the means of establishing accountability in schools and a constraint on what a good education is.

Beginning in kindergarten, standardized test results are used to sort, track, and monitor the abilities, achievements, and potentials of students. A concern is that standardized test results may be weighed more heavily than they ought to be, that decisions once made cannot or will not be reversed, and that other compelling information may be ignored. The uses of standardized testing are far-ranging. While there is considerable variation from one school district to the next, children will be administered at least one, but typically many more, standardized tests each year. Except for Iowa and Nebraska, every other state administers English and mathematics state-mandated tests from grades 3 to 8, and, of those 48 states, 31 administer state-mandated tests in at least two of grades 9 through 12.

Mental Measurement Goes to School

The use of standardized student achievement testing in U.S. schools dates back to 1845 with the administration of the Boston Survey. Horace Mann, then secretary of the Massachusetts State Board of Education, oversaw the development of a written examination covering topics such as arithmetic, geography, history, grammar, and science. The test battery, 154 questions in all, was given to 530 students sampled from the more than 7,000 children attending Boston schools. Mann was moved to create these tests because of what he perceived to be a lack of consistency and quality in the Boston schools.

This was followed not long after by Joseph Rice's work, also in Boston. In the decade beginning in 1895, Rice organized assessment programs in spelling and mathematics in a number of large school systems. Much as Horace Mann wanted to see more consistency in what was taught in schools, Rice was motivated by a perceived need to standardize curriculum.

About this same time, in 1904, E. L. Thorndike, known as the father of educational testing, published the first book on educational measurement, *An Introduction to the Theory of Mental and Social Measurement.* He and his students developed many of the first achievement tests emphasizing controlled and uniform test administration and scoring.

But the real impetus for the growth of testing in schools grew out of the then developing emphasis on intelligence tests, particularly those that could be administered to groups rather than individuals, work that built on the basics of Thorndike's achievement tests. In 1917, the Army Alpha (for literate test takers) and the Army Beta (for illiterates) intelligence tests were developed. Robert Yerkes, Louis Terman, and others took up the challenge during World War I of helping the military to distinguish between those recruits who were officer material and those who were better suited to the trenches. Within a year and a half, Terman and his student Arthur S. Otis had tested more than 1.5 million recruits.

Terman also created the Stanford Achievement Test, which he used in his longitudinal study of gifted children and from whence came the term *intelligence quotient,* or IQ. So taken with Terman's work, the Rockefeller Foundation supported his recommendation

that every child be administered a "mental test" and in 1919 gave Terman a grant to develop a national intelligence test. Within the year, tests were made available to public elementary schools.

Test publishers quickly recognized the potential of testing in schools and began developing and selling intelligence tests. Houghton-Mifflin published the Stanford-Binet Intelligence test in 1916. The commercial publication of tests is critical since many of the efficiencies of the testing industry, such as machine scanning, resulted from efforts to gain market share. In turn, the ability to process large quantities of data permitted ever more sophisticated statistical analyses of test scores, certainly with the intention of making the data more useful to schools, teachers, and counselors.

Until the onset of the current high-stakes testing movement, achievement and ability tests served a number of purposes, but in his 1966 book *The Search for Ability: Standardized Testing in Social Perspective,* David Goslin summarized what were at the time the typical uses of standardized tests in schools:

- to promote better adjustment, motivation, and progress of the individual student through a better understanding of his abilities and weaknesses, both on his own part and on the part of his teachers and parents
- to aid in decisions about the readiness of the pupil for exposure to new subject matter
- to measure the progress of pupils
- to aid in the grade placement of individuals and the special grouping of children for instructional purposes within classes or grades
- to aid in the identification of children with special problem or abilities
- to provide objective measures of the relative effectiveness of alternative teaching techniques, curriculum content, and the like
- to aid in the identification of special needs from the standpoint of the efficiency of the school relative to other schools

While Goslin's list represents the emphasis on local uses of testing, at this same time, during the administration of John F. Kennedy, there was a growing interest in national assessment. During this period, Ralph Tyler was called upon to oversee the development of a national testing system, which would become the National Assessment of Educational Progress (NAEP), first administered in 1969 by the Education Commission of the States. The creation of NAEP allowed for state-by-state comparisons and a common metric for all U.S. students, and all states are now required to participate in NAEP testing.

The Technical and Sociopolitical Nature of Measurement

The development of standardized means for measuring intelligence, ability, and achievement coincided with a remarkable explosion of scientific knowledge and technological advance across a wide range of domains. The industrial growth during most

of the 20th century and the information technology growth of the late 20th century are the context for the use and development of assessments that differentiate individuals for the allocation of scarce resources such as jobs, postsecondary education, and scholarships.

Without the power of more and more advanced and complex technology, both in terms of data management and statistical analysis, it is doubtful that student assessment would be the driving force of the accountability demanded in the current standards-based reform movement. The development of testing technology is a series of changes, each responding to a contemporary constraint on testing, and each of which enhanced the efficiency of testing—that is, the ability to test more people at less cost and in less time. Charles Pearson's invention of factor analysis in 1904, Lindquist's invention of the optical scanner in 1955, the development of item response theory in the early 1950s by Fred Lord and Darrell Bock, as well as the variant developed by Georg Rasch in 1960, and the development of matrix sampling by Darrell Bock and Robert Mislevy in the 1960s and 1970s are examples of these technological enhancements. A number of areas in student assessment remain astonishingly unsophisticated, such as, for example, strategies for standard setting. In many ways, the educational measurement community has operated on the assumption that appropriate uses of assessment in schools is a matter of making good tests and being able to manipulate the scores in sophisticated ways. However, testing is also a sociopolitical activity, and even technically sound measures and procedures are transformed when they are thrown into the educational policy and practice arena.

There is and has been great optimism about what testing and measurement in schools can accomplish. Robert Linn, contemporary father of educational measurement, suggests in his 2000 *Educational Researcher* article that we are overly optimistic about the promises of what can be delivered:

> I am led to conclude that in most cases the instruments and technology have not been up to the demands that have been placed on them by high-stakes accountability. Assessment systems that are useful monitors lose much of their dependability and credibility for that purpose when high stakes are attached to them. The unintended negative effects of high-stakes accountability uses often outweigh the intended positive effects. (19)

Eugenics and Testing

Early U.S. work on mental measurement was deeply informed by a presumed genetic basis for intelligence and differences. In 1905, the French psychologist Alfred Binet developed a scale for measuring intelligence that was translated into English by the American psychologist Henry H. Goddard, who was keenly interested in the inheritability of intelligence. Although Binet did not hold the view that intelligence was

inherited and thought tests were a means for identifying ways to help children having difficulty, Goddard and other U.S. hereditarians disregarded his principles. Goddard believed that "feeble-mindedness" was the result of a single recessive gene. He would become a pioneer in the American eugenicist movement.

"Morons" were Goddard's primary interest, and he defined morons as "high grade defectives" who possess low intelligence but appear normal to casual observers. In addition to their learning difficulties, Goddard characterized morons as lacking self-control, susceptible to sexual immorality, and vulnerable to other individuals who might exploit them for use in criminal activity.

Lewis Terman was also a eugenicist and popularized Binet's work (that is, Goddard's translation of it) with the creation of the Stanford-Binet Test. A critical development, and one that still sets the parameters for standardized testing, was Terman's standardizing the scale of test scores—100 was the average score and the standard deviation was set at 15. Terman (along with others, including E. L. Thorndike and R. M. Yerkes) promoted group testing for the purpose of classifying children in grades three through eight, tests that were published by the World Book Company (the current-day Harcourt Brace). The intent of these tests was clear: to identify the feeble-minded and curtail their opportunity to reproduce, thus saving America from "crime, pauperism, and industrial inefficiency." Although lively discussion (most especially with Walter Lippman) about the value of and justifiability of Terman's claims was waged in the popular press, this eugenicist perspective persisted.

In addition, Terman's classifying of student ability coincided with ideas emerging among progressive educators in the 1910s. Progressives believed curriculum and instructional methods should be scientifically determined, and Terman's tests and interpretations fit the bill. Few seriously questioned his assumptions about the hereditary nature of intelligence or that IQ was indeed a valid measurement of intelligence. By "scientifically" proving that recent immigrants and blacks scored lower than whites due to an inferior mental endowment, he catered strongly to the nativism and prejudice of many Americans.

Although most contemporary experts in mental measurement eschew these eugenicist beginnings, the debate lives on, manifest more recently in the work of Herrnstein and Murray in the much-debated book *The Bell Curve*. The authors of this treatise have used intelligence testing to claim African Americans are genetically intellectually inferior. But their arguments are connected to class as well, and herein may lie the most obvious connections to the advocacy of testing by powerful politicians and corporate CEOs. Questions and answers they pose are:

> How much good would it do to encourage education for the people earning low wages? If somehow government can cajole or entice youths to stay in school for a few extra years, will their economic disadvantage in the new labor market go

> away? We doubt it. Their disadvantage might be diminished, but only modestly. There is reason to think that the job market has been rewarding not just education but intelligence. (96)

Race and class, which are inextricably linked in contemporary society, remain important considerations in measurement and assessment. There is ample evidence that suggests achievement tests are better predictors of parental income than anything else.

Biases in Standardized Tests

Standardized tests used in schools have always been criticized for their potential biases, especially since the test developers may be different from many students taking the tests, and these authors may take for granted their cultural, class, racial upbringing, and education. Although test developers strive to develop fair tests, it is difficult to make a single test that accurately and fairly captures the achievement of a student, rather than their life experiences. For example, a test item that asks about the motion of two trains moving on parallel tracks may be obvious to adults but quite confusing to a child who has never had occasion to ride on a train. Or the obvious class bias in the oft-cited analogy question on the SAT—runner is to marathon as oarsman is to regatta. The bias in standardized test questions may be based on cultural, class, ethnic, gender, or linguistic differences.

The increased use of standardized tests called high-stakes tests—those where the results are used to make important decisions resulting in rewards or punishments—has, however, reinforced the disadvantages standardized tests present for students of color and those living in poverty. High-stakes testing is disproportionately found in states with higher percentages of people of color and living in poverty. A recent analysis of the National Educational Longitudinal Survey shows that 35 percent of African American and 27 percent of Hispanic eighth-graders will take a high-stakes test, compared to 16 percent of whites. Looked along class lines, 25 percent of low socioeconomic–status (SES) eighth-graders will take a high stakes test compared to 14 percent of high-SES eighth graders. Students of color are more likely to take high-stakes tests, and they also score lower than white students. With the advent of high-stakes testing, dropout rates for students of color have increased, either because they do not do well on the tests required for graduation or because they are pushed out by school districts that are judged by their overall test scores.

Effects of Standardized Tests on Test Takers

Although standardized tests are meant to facilitate educational decision making at many levels, it is important to consider the experience of the test taker. Generally, policymakers, test developers, and educational bureaucrats assume the taking of standardized tests will be benign, with relatively modest positive or negative effects on

children. Research, however, suggests standardized testing contributes to unhealthy levels of student stress, resulting sometimes in serious mental health problems and even suicide.

Although less dramatic, there is also concern that emphasizing performance on standardized tests (and even grades) diminishes students' motivation to learn. Rather than focusing on the value of learning, educational contexts that emphasize outcomes focus students on getting the grade or test score—emphasizing what is required to do well on the test rather than focusing on genuine learning. Lifelong learning and critical thinking are not key educational outcomes when the focus is on tests scores.

Standardized Tests and Accountability

Despite cautions about the value of standardized testing, test scores are now the common language used by education bureaucrats, politicians, and the media to summarize the quality, or lack of quality, of schools. This is a recent use of standardized tests though, and the last decade has seen a turn to high-stakes testing. While test scores have been used within the education bureaucracy for many decades, it was not until the late 1970s, when the College Board reported declines in SAT scores, that these scores become the means for describing the quality of schools. And the debate about the meaning and value of those scores for such purposes began immediately.

Culturally, Americans are drawn to statistical and numerical indicators, which are perceived to be factual and objective. Perhaps this is a result of public policy debate in a complex democracy where there is a tendency to gravitate to simple means for resolving differences in deeply held value positions. Perhaps it is a romance with technology and science. In a few decades, standardized test scores have infiltrated the popular culture as the obvious, inevitable indicator of the quality of education and schooling. In such a short time, we have forgotten there are many other sorts of evidence that have been and can be used to describe the quality of schools and schooling.

TABLE 1. An Illustration of Standardized Testing across the Life of a Student

Grade	Test
*for remedial students only; **Johns Hopkins Talent Search test for gifted program.	
Kindergarten	Boehm Test of Basic Concepts
1st	Gates-MacGinitie Reading Test*
2nd	Gates-MacGinitie Reading Test* Stanford Diagnostic Math Test* Terra Nova (reading and math)

(*continued*)

TABLE 1. (*continued*)

Grade	Test
3rd	Gates-MacGinitie Reading Testing* Stanford Diagnostic Math Test* Terra Nova (reading & math) School and College Ability Test (SCAT)** Cognitive Abilities Test (CogAT)
4th	Gates-MacGinitie Reading Test* Stanford Diagnostic Math Test* School and College Ability Test (SCAT)** State English Language Arts Test State Math Test State Science Test
5th	Gates-MacGinitie Reading Test* Stanford Diagnostic Math Test* Terra Nova (reading and math) School and College Ability Test (SCAT)** State Social Studies Test
6th	Terra Nova (reading and math) School and College Ability Test (SCAT)**
7th	Terra Nova (reading and math) Cognitive Abilities Test (CogAT)
8th	State English Language Arts Test State Math Test State Science Test State Social Studies Test State Foreign Language Test State Technology Test
9th–12th	State Graduation Exams: English Language Arts Mathematics Global History and Geography U.S. History and Government Science Language other than English PSAT SAT

The reporting of test scores in the media, primarily in newspapers, is now expected and often uncritically examined. Typically, the test scores on state-mandated standardized tests are published annually in local newspapers. Little, if any, information is provided about the meaning of the scores. Topics like measurement error (which, for example, would tell one that on the SAT, a difference of at least 125 points between two scores is necessary to be confident there is any real difference between the two test takers) and test validity (whether the standardized test being used is one that was developed for that particular use) are usually not included, either because they are not understood by education reporters or are perceived as too complex for the average reader. Similarly, schools and districts are often ranked—an absolute folly given the error in the scores and the conceptual problem of truly being able to justifiably rank order hundreds of things.

While test developers have always cautioned that tests should be used for the purposes for which they were developed, this desire for a simple common metric to judge a student's learning, the quality of a school, a teacher's performance, or a state or country's educational attainment has led to more misuses of tests. More and more standardized tests are required, and too often tests are being used in ways they were not intended to be used. The most common example of this is when general achievement tests developed specifically to create a spread of scores from very low to very high with most scores in the middle (like the Iowa Test of Basic Skills) are used to determine what students have actually learned. James Popham, notable measurement expert, likens this misuse to taking "the temperature with a tablespoon."

Conclusion

Standardized tests have been a part of education and schools for many decades and will continue to be a part of the educational landscape. Controversy will surely continue to surround their uses and the psychological, social, and political aspects of their use.

See also **Government Role in Schooling; No Child Left Behind (NCLB)**

Further Reading

Baker, Joan M., *Achievement Testing in U.S. Elementary and Secondary Schools.* New York: Peter Lang, 2005.

Hursh, David W., *High-Stakes Testing and the Decline of Teaching and Learning.* Lanham, MD: Rowman & Littlefield, 2008.

Mathison, Sandra, and E. Wayne Ross, *Defending Public Schools: The Meaning and Limits of Standards-Based Reform and High-Stakes Testing.* Westport, CT: Praeger, 2004.

Nichols, Sharon Lynn, and David C. Berliner, *Collateral Damage: How High-Stakes Testing Corrupts American Schools.* Cambridge MA: Harvard Education Press, 2007.

Phelps, Richard P., ed., *Defending Standardized Testing.* Mahwah, NJ: Lawrence Erlbaum, 2005.

STEROID USE BY ATHLETES

Rob Beamish

The World Anti-Doping Agency's (WADA) "2008 Prohibited List" states clearly: "Anabolic agents are prohibited." The list prohibits 47 *exogenous* anabolic androgenic steroids (AAS), 21 *endogenous* AAS, and five *other anabolic agents.* Steroid use in any sport governed by WADA's code is subject to a two-year suspension the first time and lifetime suspension the second time. According to WADA, the code preserves "what is intrinsically valuable about sport…The intrinsic value is often referred to as 'the spirit of sport': it is the essence of Olympism: it is how we play true.…Doping is fundamentally contrary to the spirit of sport."

Following the Canadian government's inquiry into the use of drugs in sports, Chief Justice Charles Dubin articulated similar reasons for banning AAS. The use of banned drugs is cheating, Dubin maintained. Drugs threaten "the essential integrity of sport" and destroy "its very objectives." Drugs "erode the ethical and moral values of the athletes who use them, endangering their mental and physical welfare while demoralizing the entire sport community."

Although the primary objection to AAS in sports is ethical, concerns over their physiological impact have also influenced the ban. First synthesized in 1935, it was then noted that, despite the initial, positive response by some scientists, the conservative medical establishment was wary of a synthetic hormone that might "turn sexual weaklings into wolves and octogenarians into sexual athletes." The concern today is the negative side effects from AAS, even though almost all are reversible in postpuberty males (and knowingly accepted by females). Nevertheless, sports leaders have used the potential negative side effects as a deterrent to AAS use and grounds for their ban.

Two further sentiments underlie the AAS ban in sports, although they are rarely noted. The first concerns the symbolic power and significance of sports and the association of steroids with certain reprehensible events in sports or social history. The second is a fear of the unrestricted, scientifically assisted pursuit of the outer limits of athletic performance. Increased musculature and steroids' performance-enhancing attributes cause concern about where the use of unrestricted science, technology, and pharmacology might ultimately lead.

Background

The moral arguments against AAS and sports' symbolic importance stem from Baron Pierre de Coubertin's efforts to create the modern Olympic Games as a unique moral and educational program. Feeling that late 19th-century Europe was falling into spiritual decline, Coubertin wanted to reestablish its traditional values through a far-reaching, innovative, educational project. His plan grew out of the philosophy of the

"muscular Christian" and the spirituality of the ancient games. Character, Coubertin maintained, "is not formed by the mind, it is formed above all by the body." Sports, as it was practiced in the British public schools, could revitalize the moral and spiritual fiber of Europe's youth.

Coubertin's image was inspiring. "The athlete enjoys his effort," Coubertin wrote (2000 552). "He likes the constraint that he imposes on his muscles and nerves, through which he comes close to victory even if he does not manage to achieve it. This enjoyment remains internal…, Imagine if it were to expand outward, becoming intertwined with the joy of nature and the flights of art. Picture it radiant with sunlight, exalted by music, framed in the architecture of porticoes." This was "the glittering dream of ancient Olympism" that "dominated ancient Greece for centuries."

Coubertin's project would create "an aristocracy, an elite"—"a knighthood" of "brothers-in-arms." Chivalry would characterize the Games—"the idea of competition, of effort opposing effort for the love of effort itself, of courteous yet violent struggle, is superimposed on the notion of mutual assistance" (Coubertin 2000, 581). Chivalrous brothers-in-arms, bonding in the cauldron of competition, would forge Europe's new moral elite.

Winning was irrelevant to Coubertin; character development in the struggle to win a fair, man-to-man contest (the gender is intentional) against a respected opponent, within a chivalric code of conduct was everything. Performance enhancement of any type—even physical training—was completely foreign to the ethos of Olympism. The true "essence of sport" was far loftier than crass, competitive sports; it centered on the character development upper-class youths gained on the playing fields of Rugby, Eton, and elsewhere in civilized Europe.

One cannot emphasize enough how this idealized image serves as the key reference point for AAS policies at the present time.

Symbolism was central to the modern Olympic Games from their inception. To achieve the appropriate solemnity, Coubertin launched his project "under the venerable roof of the Sorbonne [where] the words 'Olympic Games' would resound more impressively and persuasively" (cited in Beamish and Ritchie 2006, 32). It was, however, the 1936 Games in Nazi Germany and the long shadow of World War II that demonstrated the Games' symbolic power.

Nazi Propaganda Minister Joseph Goebbels was a master at manipulating information and emotions for political gain. The Nazis frequently used imposing, emotive, Wagnerian-styled *gesamtkunstwerke*—total works of art—in enormous venues such as sports stadiums, to blend music, choreography, costume, and neoclassical architecture into captivating, exhilarating, and emotionally draining experiences. Knowing the power that well-crafted propaganda had on the hearts and minds of the masses, the 1936 Games let Goebbels use the Promethean symbolic power of the Olympics to project the commanding presence of Nazi Germany across Europe.

The Games' marquee icon—the chiseled, muscular, racially pure Aryan, crowned with a victor's olive wreath, rising above the goddess of victory atop the Brandenburg Gate—embodied the Nazi's quest for world domination. The image soon included the cold-blooded brutality of German troops as they conquered Europe and marched on to Moscow.

In the post–World War II period, amid the ashes of destruction and defeat, rumors that Hitler's Secret Service had taken steroids while perpetrating the Holocaust and destroying Eastern Europe were added to the image of Nazi barbarism. The 1936 Games linked steroids, ruthless aggression, moral depravity, and totalitarianism into one stark, chilling entity.

Admiring the Nazis' use of the Games to project their power, the Soviet Union joined the Olympic movement for similar ends. At the 1952 Games—the first post–World War II confrontation between the superpowers—Soviet success quickly dispelled any notion of U.S. superiority.

Confirming at the 1954 world weightlifting championships that the Soviets had used testosterone to enhance performance in world competitions, U.S. physician John Ziegler developed methandieone, or Dianabol, to level the playing field. Dianabol quickly spread from weightlifters to the throwers in track and field and on to other strength-based sports. By the early 1960s, steroids were commonplace in world-class sports, and the unfettered use of science to win Olympic gold would increasingly dominate nations' and athletes' approach to sports after 1954.

Key Events

From the outset—and enshrined in the Olympic Charter in 1962—the Modern Games were restricted to amateur athletes. The type of competitor that Coubertin and the International Olympic Committee (IOC) wanted was the turn-of-the-20th-century British amateur. Only the well-educated, cultured, physically active, male aristocrat had the appropriate appreciation of sports to realize Coubertin's goals. Well before 1952, however, the IOC had little control over the athletes who competed, and it failed miserably in achieving Coubertin's educational objectives. Nevertheless, the IOC—especially Avery Brundage (president from 1952 to 1972)—struggled to maintain the Games' integrity. The Olympics, Brundage claimed, "coming to us from antiquity, contributed to and strengthened by the noblest aspirations of great men of each generation, embrace the highest moral laws.…No philosophy, no religion," he maintained, "preaches loftier sentiments." But the social pressures outside the movement quickly overwhelmed those lofty claims.

Throughout the 1950s and 1960s, Cold War politics, expanding consumerism, and the growth of television with its vast commercial resources and thirst for targeted audiences increasingly pressured the IOC to open the Games to the world's best athletes. Furthermore, developments in sports science encouraged athletes to devote longer periods of

their lives to the pursuit of Olympic gold and financial reward—Olympic athletes became increasingly professional. By 1970, pressure grew to replace the amateur rule with a new eligibility code. The 1971 code remained restrictive, but a 1974 revision opened the Games to the best athletes money could buy and governments and sports scientists could produce.

Danish cyclist Knud Jensen's death at the 1960 Olympics, allegedly from amphetamine use, symbolized the value athletes placed on victory. The IOC established a medical committee in 1961 to recommend how to prevent or control drug use by athletes. The 1964 recommendations included athlete testing, signed athlete statements confirming they were drug-free, and heavy sanctions. Rule 28, added to the charter in 1967, prohibited any "alien or unnatural substances" that created an unfair advantage; although banned in 1967, the IOC did not test for AAS until 1976.

The Nazis and Soviets had used the Games to occupy center stage internationally and symbolically project their importance to the world. The German Democratic Republic (GDR) developed similar aspirations—especially after Munich was awarded the 1972 Games. The decision to hold the Olympics on the soil of the GDR's most bitter rival—the Federal Republic of Germany—was pivotal in the history of AAS use by world-class athletes. The GDR initiated "State-Plan 14.25"—an extensive, high-level, classified, laboratory research program involving substantial state resources—to develop a scientifically based program of steroid use. By the 1976 Olympics, AAS were fully integrated into the GDR's high-performance sports system as a matter of state policy.

Throughout the 1970s and 1980s, the Games increasingly centered on the all-out pursuit of victory. For nations, Olympic gold signified strength, power, and international supremacy; for athletes, it meant wealth and celebrity.

Ben Johnson crushed Carl Lewis and shattered the 100-meter world record in the 1988 Games' premier event, but his positive test for stanozolol created a major crisis. In short order, *Sports Illustrated* ran articles on steroids in sports, and the Canadian government and the U.S. House of Representatives began investigations into AAS use in sports. The entire credibility of the Olympic movement was at stake—was the IOC serious about steroids and the purity of the Games? Steroid use, it was clearly evident, was widespread.

In March 1998, French customs officials found erythropoietin (EPO) in the TVM cycling team's van, and criminal charges followed. Then in July, mere days before the Tour de France began, the Festina team was implicated in the EPO scandal. But it was IOC President Juan Antonio Samaranch's comments that shocked the world. Drugs could damage an athlete's health as well as artificially improve performance, Samaranch observed. If it only improves performance, he continued, it did not matter: "Anything that doesn't adversely affect the health of the athlete, isn't doping." Potentially implicating the IOC in whitewashing AAS use, Samaranch's comments forced the IOC to establish an independent body to oversee drug testing from then on.

Created in 1999, WADA hosted a world conference on drug use that led to its June 2002 draft of the World Anti-Doping Code. A subsequent draft in October led to unanimous adoption of version 3.0 in March 2003 at the second world conference. Despite WADA's efforts, steroid use did not stop; AAS users simply found ways to avoid detection. In July 2003, track coach Trevor Graham gave the American Anti-Doping Agency a syringe containing the designer anabolic steroid tetrahydrogestrinone (THG). Graham alleged that Victor Conte, through the Bay Area Laboratory Co-Operative (BALCO), was giving THG to world-class U.S. athletes at their request. BALCO was just beginning. President George W. Bush's 2004 State of the Union Address focused on education reform, Medicare, the Patriot Act, the war on terrorism, and military engagements in Afghanistan and Iraq. The president turned next to family values and the war on drugs. "One of the worst decisions our children can make is to gamble their lives and futures on drugs," Bush warned (Associated Press, 2004). To make the right choices, children need good role models, but, Bush maintained, "some athletes are not setting much of an example.…The use of performance-enhancing drugs like steroids in baseball, football and other sports is dangerous, and it sends the wrong message—that there are short cuts to accomplishment, and that performance is more important than character." Bush challenged professional sports 'to get rid of steroids now.'"

Within days, the *San Francisco Chronicle* published allegations that Greg Anderson, homerun king Barry Bonds's personal trainer, had ties to BALCO and gave Bonds THG. The *Chronicle* alleged that Anderson supplied Jason Giambi, Gary Sheffield, and others with AAS. Steroids and BALCO were now linked within America's national pastime.

In May 2004, U.S. sprinter Kelli White admitted to taking THG supplied through BALCO. In December 2005, the Lausanne-based Court of Arbitration for Sport suspended 100-meter world record holder Tim Montgomery for THG use, stripping him of his 2002 record. In November 2006, a federal grand jury indicted Graham for three counts of making false statements to the Internal Revenue Service Criminal Investigation Division officials around the BALCO investigations. And in October 2007, sprinter Marion Jones was stripped of her medals and records for taking BALCO-supplied THG.

From a trailerlike office operation (BALCO), run by a self-aggrandizing schemer-entrepreneur (Conte) assisted by his "steroid guru" (Patrick Arnold), BALCO now symbolized the sleaziest aspects of athletes' greed and lust for record performances and celebrity.

On March 17, 2005, Denise Garabaldi and Don Hooton told the House of Representatives' Oversight and Government Reform Committee that steroids had killed their sons. Subpoenaed to testify, Mark McGuire evaded questions, Rafael Palmeiro denied he had used AAS, and Jose Conseco said his book *Juiced* told the full story. The event forced Bud Selig to appoint former Senate Majority Leader George Mitchell to conduct

an independent investigation into steroid use in baseball. Mitchell's report identified 86 players as users and led to Chuck Knoblauch, Andy Pettitte, Roger Clemens, and personal trainer Brian McNamee testifying before the committee in February 2008. The reality of AAS use by athletes had never been so clear, although its full extent is still shrouded in secrecy. Some athletes, such as Mark McGuire, have begun admitting on their own (albeit belatedly in his case) that they were indeed involved with using AAS.

Conclusion

The future of steroid use by athletes depends upon how four fundamental issues and sets of questions are answered: It is clear that the Olympic Games do not embody Coubertin's principles and goals; they are a commercial extravaganza that nations exploit for international status, while athletes use them for fame and money. One must ask whether the principles that really underlie contemporary, world-class, high-performance sports justify the exclusion of performance-enhancing substances such as AAS. On what grounds should officials try to restrict scientific performance enhancement in commercial, entertainment spectacles where the ultimate attraction is athletic performance at the outer limits of human potential? What principles apply?

What are the long-term health implications of AAS use by athletes (and by people in the general population)? How safe or dangerous are steroids—unmonitored or monitored by physicians? What are the emotional and cognitive effects that lead to, and may result from, AAS use? Do existing laws on AAS possession and use protect or endanger users?

AAS are not confined to enhancing athletic performance. Athletes are just one source of ideal body images that saturate commercial and entertainment media. "Megarexia"—muscular dysmorphia—has become a serious issue among a growing percentage of young men (and some women). Does the sports ban on AAS help limit the spread of muscular dysmorphia among contemporary youth, or are there more significant factors? Does the WADA ban on steroids limit AAS use among young athletes and nonathletes? If not, what would?

Finally, one must consider the widespread use of drugs in people's lives today. What are the fundamental concerns and issues related to the increasing use of over-the-counter, prescription, and illegal drugs? Where do steroids fit into those concerns? To reduce steroid use, what changes have to occur in the broader culture?

See also **Drugs**

Further Reading

Assael, Shaun, *Steroid Nation: Juiced Home Run Totals, Anti-Aging Miracles, and a Hercules in Every High School.* New York: ESPN Books, 2007.

Beamish, R., and I. Ritchie, *Fastest, Highest, Strongest: A Critique of High-Performance Sport.* London: Routledge, 2006.

Coubertin, B. P., *Olympism: Selected Writings.* Lausanne, Switzerland: International Olympic Committee, 2000.

Fourcroy, Jean L., ed., *Pharmacology, Doping, and Sports: A Scientific Guide for Athletes, Coaches, Physicians, Scientists, and Administrators.* New York: Routledge, 2009.

Hoberman, John, *Testosterone Dreams: Rejuvenation, Aphrodisia, Doping.* Berkeley: University of California Press, 2005.

Rosen, Daniel M., *Dope: The History of Performance Enhancement in Sports from the Nineteenth Century to Today.* Westport, CT: Praeger, 2008.

Todd, J., and T. Todd, "Significant Events in the History of Drug Testing and the Olympic Movement: 1960–1999." In *Doping in Elite Sport: The Politics of Drugs in the Olympic Movement,* ed. W. Wilson and E. Derse. Champaign, IL: Human Kinetics Press, 2001.

Yesalis, C., and Bahrke, M., "History of Doping in Sport." *International Sports Studies* 24 (2002): 42–76.

SUICIDE AND SUICIDE PREVENTION

Michael A. Church and Charles I. Brooks

One of the most baffling experiences for many of us to accept is the purposeful taking of one's own life. For those who have never been suicidal, it is difficult to comprehend such an act. In reality, analyses show that there are many different reasons for suicide. Ernest Hemmingway took his life after becoming increasingly depressed about overwhelming medical problems. The noted psychiatrist Bruno Bettelheim did not want his family to be encumbered by his chronic and debilitating illness. Still others grow weary of their feelings of depression, hopelessness, drug/alcohol abuse, and/or other practical or psychological problems leading to suicidal behavior. Clearly, this is a very personal act decided upon for varied reasons.

It is estimated that well over 30,000 people commit suicide yearly (Centers for Disease Control and Prevention 2007). However, experts believe that this is a gross underestimate of the actual number, because so many ambiguous deaths are ruled accidental. Moreover, it is estimated that at least 10 persons attempt suicide for every 1 who completes the act.

Some have argued that an individual would have to be psychotic or insane to perform such an act. However, psychological autopsies that involve case study analyses of the histories of those who commit suicide do not support such a contention. Although it is clear that most suicidal individuals usually have one or more psychological disorders, this is not always the case. Moreover, most individuals who commit suicide do not appear to be out of touch with reality (i.e., psychotic). Along these lines, it should be noted that suicide is not classified as a psychological disorder in the most recent diagnostic manual (the American Psychiatry Association's *Diagnostic and Statistical Manual of Mental Disorders,* 4th ed., or *DSM-IV*) used by mental health professionals.

Correlates

Obviously, we cannot perform experiments to delineate factors that cause suicide. Therefore, we are left with correlational analyses of these acts. Interestingly, studies have shown that those who attempt suicide are different than those who "succeed." Attempters are likely to be white housewives between 20 and 40 years of age who are experiencing marital or relationship problems and who overdose with pills. Those who actually end their lives tend to be white men over 40 years of age who are suffering from ill health and/or depression, and they shoot or hang themselves (Diekstra, Kienhorts, and de Wilde 1995: Lester 1994; Fremouw, Perczel, and Ellis 1990).

Suicide Statistics

- Suicide is the eighth leading cause of death in U.S. men.
- Married people are less likely to kill themselves than those who are divorced.
- Suicide rates are highest during the spring and summer months.
- The suicide rate among college students is twice as high as those who are not in college, and one in five students admits to suicidal thoughts sometime during college.
- Men commit suicide about three times more often than women, although women attempt it about three times more frequently.
- Physicians, lawyers, law enforcement personnel, and dentists have the highest rates of suicide.
- Socioeconomic status is unrelated to suicide, although a marked drop in socioeconomic status is associated with greater potential for suicide.
- Suicide rates are lower in countries where Catholicism and Islam are a strong influence.
- Native Americans have very high rates of suicide compared with Japanese Americans and Chinese Americans.
- Suicide rates tend to be low during times of war and natural disasters, which tend to create cohesiveness and purpose in a greater percentage of people.
- The majority of people who commit suicide communicated their intent prior to the act.
- Men over 65 years of age are the most likely group to commit suicide.
- Men are more likely to use violent means to kill themselves than women (e.g., firearms versus pills, respectively), although women are increasing their use of methods more likely to be successful.
- About 60 percent of suicide attempters are under the influence of alcohol, and about 25 percent are legally intoxicated.
- The majority of suicide victims show a primary mood disorder.
- Childhood and adolescent rates of suicide are increasing rapidly, and suicide is the third leading cause of death among teens.

- Although depression is correlated with suicide, hopelessness is more predictive of the act. (For information on this and the other items in the above list, see Berman 2006; Centers for Disease Control 2007; Leach 2006; and Shneidman 1993.)

Common Characteristics of Suicide

Suicide victims almost always show ambivalence caused by the built-in desire to survive and avoid death. Still, the goal is to end psychological pain that they see as permanent. They have reached a point of seeing the future as hopeless. Tunnel vision is a common state for the suicidal, wherein they are unable to see the "big picture." Death is viewed as the only way out. Other options and the impact of suicide on significant others are minimally considered, if at all. Thus, the act undertaken is one of escape—an act, moreover, that is often typical of their lifelong coping styles.

Theoretical Orientations

Theories of suicide generally focus on sociological, psychodynamic, and biological causes. Sociocultural explanations were originally advanced by the French sociologist Emile Durkheim (1951). He postulated three types of suicide: egoistic, altruistic, and anomic. Egoistic suicide results from an individual's inability to integrate one's self with society. Lack of close ties to the community leaves the individual without support systems during times of stress and strain. Durkheim argues that highly industrialized and technological societies tend to deemphasize connection with community and family life, thereby increasing vulnerability to suicide. Altruistic suicide involves the taking of one's life in order to advance group goals or achieve some higher value or cause. Examples include some terrorist and religious acts. Anomic suicide occurs when dramatic societal events cause an individual's relationship with society to become imbalanced in significant fashion. Higher suicide rates during the Great Depression and among those who were freed from concentration camps after World War II serve as examples.

Psychodynamic explanations were derived from Freudian theory, which says that suicide is anger turned inward. Presumably, the hostility directed toward self is, in actuality, against the love object with whom the person has identified (e.g., the mother, the father, or some other significant relation). Interestingly, research analysis of 165 suicide notes over a 25-year period showed that about one-quarter expressed self-anger. However, the majority either expressed positive self-attitudes or neither. Thus, although some suicides may involve anger turned toward oneself, it appears other emotions and factors are also relevant (Tuckman, Kleiner, and Lavell 1959).

Biological explanations have focused on the fact that suicide, like many other psychological phenomena, can run in families. That is, there is evidence that suicide and suicide attempts are higher among parents and close relatives than with nonsuicidal people. Additionally, patients with low levels of the metabolite 5-HIAA (which is involved in

the production of serotonin, a brain neurotransmitter) are more likely to commit suicide (Asberg, Traskman, and Thoren 1976; Van Praag 1983). Such persons are more likely to possess histories of impulsive and violent behavior patterns (Edman, Adberg, Levander, and Schalling 1986; Roy 1992). Of course, this evidence is correlational in nature and does not indicate whether low levels of 5-HIAA are the cause or the effect of certain moods and emotions or whether they are directly related.

Children, Adolescents, and College Students

Although suicide almost always leaves one with a deep sense of loss, it is particularly tragic when it occurs with a young person. In many ways, those belonging to the youth population are the most vulnerable to making irreversible decisions (their last) without receiving much, if any, support or help and without fully understanding the ramifications of the suicidal act, including how it will affect others.

There is evidence that family instability and stress is correlated with suicide attempts (Cosand, Bouraqe, and Kraus 1982). Many suicidal children have experienced traumatic events and the loss of a parental figure before age 12. Their parents have frequently been abusers of drugs and/or alcohol. Their families have been found to be under greater economic stress than matched (control group) families. The families of suicide attempters also showed a higher number of medical problems, psychiatric illnesses, and suicides than the control group families.

Carson and Johnson (1985) say that 20 percent of college students have experienced suicidal ideation during their college years. Research has shown that students who commit suicide tend to be men, older than the average student by about four years, more likely to be a graduate as opposed to undergraduate student, more often a foreign or language/literature student, and to have performed better academically as an undergraduate than as a graduate student (Seiden 1966, 1984). Further analyses have shown that, despite excellent academic records, most college undergraduates who commit suicide are dissatisfied with their performances and pessimistic about their abilities to succeed. Along these lines, they tend to show unrealistically high expectations for themselves and perfectionist standards and often feel shame over their perceived failings. Additionally, a frequent stressor is the failure to reach expectations or loss of a close interpersonal relationship. A precipitating factor is often the breakup of a romantic relationship. Also, suicide attempts and suicides are more likely to occur with students who have experienced the separation or divorce of their parents or the death of a parent.

Assessment

Clinical psychologists use various tests, such as the Beck Depression Inventory, Beck Hopelessness Scale (BHS), and Beck Scale for Suicide Ideation, to help assess suicide probability. These and other types of psychological tests can be used to supplement

clinical interviews, patient histories, and other information as data that can help determine suicidal risk. These measures depend on the honesty of the respondent because they do not have validity scales that can determine people who are deliberately denying their true feelings and intentions. Interestingly, Exner's Rorschach system can be used to predict suicide risk. The test includes a suicide constellation score that allows for prediction of those who possess heightened potential for such. Because the Rorschach is comprised of ambiguous stimuli, it is very difficult to fake. Although all of these measures can be used to complement other inputs, the BHS has been found to be particularly helpful in predicting eventual suicide (Beck, Steer, Kovacs, and Garrison 1985).

Suicide Prevention

Most suicidal victims display signs of their intent. Families, coworkers, primary care doctors, mental health professionals, and others need to be aware of these signs and then act appropriately in terms of the specific context. Of course, laypeople are not expected to be able to predict the likelihood of a suicide attempt with the accuracy of a trained professional. However, friends, coworkers, and family members are certainly in a better position to see day-to-day changes in potential suicide victims' moods and earlier behaviors in ways a professional cannot. As a result, family members and acquaintances may be able to intervene effectively or get the sufferer needed professional help. For example, knowing that men, particularly the depressed elderly, are more likely to commit suicide than other demographic groups can alert us to warning signs in that group. Suppose we know such a man who lives alone and recently lost his wife after a sustained illness. Add to this information the fact that he seldom sees his family or friends and possesses a gun. Certainly, risk factors are present in that case. Obviously, such factors do not mean that the man *will* attempt to take his life. However, we should be alert to the higher risk of such an act taking place in this situation.

Both laypeople and professionals should be aware that people who have thought out a plan for their suicide are more likely than those without a plan to try it. Generally, the more detail they can provide about their plan, the more serious they are about carrying it out. Also, they often communicate their intent to others and provide indirect behavioral clues. For example, they may make out a will or change insurance policies, give away prized possessions, or go on a lengthy trip. At any rate, their presuicidal behavior in retrospect is often seen as somewhat unusual or peculiar. Of course, previous suicide attempts are often a precursor to a "successful" one and are a major risk factor. Still, we need to keep in mind that some suicide victims have neither tried suicide before nor communicated their intent to anyone.

With respect to suicide prevention, the phenomenon of subtle suicide (Church and Brooks 2009) is relevant. Subtle suicide typically involves a long-term pattern of self-destructive behaviors, thoughts, and feelings that ultimately drag a person down in a self-defeating fashion. As with overt suicide, subtle suicide involves deep ambivalence

about living. Sufferers have a desire to live, while, at the same time, there is an equal or greater wish that their life will end. Although not actively suicidal, the subtly suicidal engage in neglectful, self-defeating, risky and self-destructive behaviors that inevitably lower the quality and sometimes length of their lives. A downward spiraling effect occurs that can eventually lead the subtly suicidal to become overtly suicidal. In other words, some people pass through an extended period of being uncommitted to living before ending their lives. Professional and family interventions may be effective in getting these individuals committed to living more fully and out of a "subtle suicide zone," where they compromise their own physical, psychological, and social well-being.

The main point to emphasize here is that many people take a long, slow slide downhill that may or may not be apparent to those close to them. We need to keep in mind that over half of those who commit suicide have made no previous attempt (Zhal and Hawton 2004b; Stolberg, Clark, and Bongar 2002). Over time, some people who have been subtly suicidal become overtly so, particularly as their lives deteriorate and they become more hopeless in their outlook. Interventions as early in the process as possible stand to save lives and enhance the quality of life for the potential victim and significant others. Thus, early detection of people who are becoming or have become suicidal—regardless of whether they suffer from serious psychological disorders—is a first line of defense in the effort to prevent suicide. Many people can avoid the process of dealing with active suicidal ideation and behavior altogether if they get the prerequisite support and help.

A second form of prevention involves crisis intervention. The objective here is to intervene appropriately when an individual calls for help with suicidal ideation, gesture, or attempt. The focus is on maintaining contact with the potential victim. The contact could be on the telephone or in person in a hospital, mental health clinic, or other location. In all instances, the objective is to give helpful support and feedback. Constructive feedback can help in a number of ways, including (but not limited to):

- Bringing calm to the situation.
- Minimizing loneliness and alienation.
- Reducing the tunnel vision that many suicidal people have in this state.
- Combating hopelessness.
- Giving empathy.
- Offering practical options and choices.
- Making referrals to other professionals.
- Initiating an involuntary or voluntary psychiatric hospitalization.

Follow-up treatments can be crucial in preventing future attempts. Even with treatments, there is an increased risk, as those who have a previous attempt are at a five times greater risk to die by suicide (Stolberg, Clark, and Bongar 2002).

Some successful prevention studies have been done with particular high-risk groups. One program placed older men in roles where they are involved with social and interpersonal activities that help others. These activities have been found to help them cope with feelings of isolation and meaninglessness (Maris, Berman, and Silverman 2000). A similar program involved adolescents with suicidal ideation and behavior and/or mood or substance abuse history (Zhal and Hawton 2004a). Finally, working with adults who had made previous attempts, Brown and colleagues (2005) found that 10 cognitive therapy sessions targeted at suicide prevention reduced subsequent suicide attempts by 50 percent over an 18-month period. The same subjects' feelings of depression and hopelessness, moreover, were lower than the comparison group (Brown et al. 2005). These are just a few of the studies that have shown clear evidence of how suicide prevention can be used effectively.

See also **Euthanasia and Physician-Assisted Suicide; School Violence (vol. 2)**

Further Reading

Asberg, M., L. Traskman, and P. Thoren, "5HIAA in the Cerebrospinal Fluid: A Biochemical Suicide Predictor?" *Archives of General Psychiatry* 33 (1976): 1193–1197.

Beck, A. T., and R. A., Steer, *Manual for Revised Beck Depression Inventory.* San Antonio: Psychological Corporation, 1987.

Beck, A. T., and R. A. Steer, *Manual for Beck Hopelessness Scale.* San Antonio: Psychological Corporation, 1988.

Beck, A. T., R. A. Steer, M. Kovacs, and B. Garrison, "Hopeless and Eventual Suicide: A 10-Year Prospective Study of Patients Hospitalized with Suicide Ideation." *American Journal of Psychiatry* 142 (1985): 559–563.

Beck, A. T., R. A. Steer, and W. F. Ranieri, "Scale for Suicide Ideation: Psychometric Properties of a Self-Report Version." *Journal of Clinical Psychology* 44 (1988): 499–505.

Berman, A. L., "Risk Management with Suicidal Patients." *Journal of Clinical Psychology: In Session* 62 (2006): 1971–1984.

Brown, G. K., T. Have, G. R. Henriques, S. X. Xie, J. E. Hollander, and A. T. Beck, "Cognitive Therapy for the Prevention of Suicide Attempts. A Randomized Control Trial." Journal of the American Medical Association 294, no. 5 (2005); 563–570.

Carson, N. D., and R. E. Johnson, "Suicidal Thoughts and Problem Solving Preparation among College Students." *Journal of College Student Personnel* 26 (1985): 484–487.

Centers for Disease Control and Prevention, *Suicide Facts at a Glance.* 2007. http://www.cdc.gov/nipe/dvp/suicide/

Church, M. A., and C. I. Brooks, *Subtle Suicide: Our Silent Epidemic over Ambivalence about Living.* Westport, CT: Praeger, 2009.

Cosand, B. J., L. B. Bouraqe, and J. F. Kraus, "Suicide among Adolescents in Sacramento County, California, 1950–1979." *Adolescence* 17 (1982): 917–930.

Diekstra, R. F., C.W.M. Kienhorts, and E. J. de Wilde, "Suicide and Suicidal Behavior among Adolescents." In *Psychological Disorders in Young People,* eds. M. Rutter and D. J. Smith, Chichester, England: John Wiley.

Durkheim, E., *Suicide.* New York: Free Press, 1951.

Edman, G., M. Adberg, S. Levander, and D. Schalling, "Skin Conductance Habituation and Cerebrospinal Fluid 5-Hydroxyindeactic Acid in Suicidal Patients." *Archives of General Psychiatry* 43 (1986): 586–592.

Exner, J. E. Jr., *The Rorschach: A Comprehensive System.* Vol. 1, *Basic Foundations,* 3d ed. New York: John Wiley, 1993.

Fremouw, W. J., W. J. Perczel, and T. E. Ellis, *Suicide Risk: Assessment and Response Guidelines.* Elmsford, NY: Pergamon, 1990.

Leach, M. M., *Cultural diversity and Suicide: Ethnic, Religious, Gender and Sexual Orientation Perspectives.* Binghamton, NY: Haworth Press, 2006.

Lester, D., "Are There Unique Features of Suicide in Adults of Different Ages and Developmental Stages?" *Omega Journal of Death and Dying* 29 (1994): 337–348.

Maris, R. W., A. C. Berman, and M. M. Silverman, *Comprehensive Textbook of Suicidology.* New York: Guilford Press, 2000.

Roy, A., "Suicide in Schizophrenia." *International Review of Psychiatry* 4 (1992): 205–209.

Seiden, R. H., "Campus Tragedy: A Study of Student Suicide." *Journal of Abnormal and Social Psychology*, 71 (1966): 389–399.

Seiden, R. H., "The Youthful Suicide Epidemic." *Public Affairs Report* 25 (1984): 1.

Shneidman, E. S., *Suicide as Psychache: A Clinical Approach to Self-Destructive Behavior.* Northvale, NJ: Jason Aronson, 1993.

Stolberg, R. A., D. C. Clark, and B. Bongar, "Epidemiology, Assessment and Management of Suicide in Depressed Patients." In *Handbook of Depression,* ed. I. H. Gotlib and C. L. Hammen. New York: Guilford Press, 2002.

Tuckman, J., R. Kleiner, and M. Lavell, "Emotional Content of Suicide Notes." *American Journal of Psychiatry* 16 (1959): 59–63.

Van Praag, H. M., "CSF 5-H1AA and Suicide in Nondepressed Schizophrenics." *Lancet* 2 (1983): 977–978.

Zahl, D. L., and K. Hawton, "Media Influence on Suicidal Behavior: An Interview Study of Young People." *Behavior and Cognitive Psychotherapy* 32, no. 2 (2004a): 189–198.

Zahl, D. L., and K. Hawton, "Repetition of Deliberate Self-Harm and Subsequent Suicide Risk: Long-term Follow-up Study of 11,583 Patients." *British Journal of Psychiatry* 185 (2004b): 70–75.

SURROGACY

Sarah Fish

Surrogacy is a form of reproductive assistance in which one woman bears a child for another woman to rear. While it sounds like a simple proposition—something a woman might do for another out of the goodness of her heart—it is far more complex than it initially sounds. Likewise, the ethical, moral, and legal controversies surrounding surrogacy continue to be revealed.

Surrogacy: A Brief U.S. History

Surrogacy, as scientific assistance for pregnancy and birth, became a part of public discourse around the mid-1970s, despite its having been mentioned in the Bible in Genesis. The first documented instance in the United States comes from an anonymous advertisement in the mid-1970s requesting the help of a surrogate mother. According to the advertisement, the surrogate would receive from $7,000 to $10,000 for her services and $3,000 for medical expenses. The amount established in the 1970s has been the accepted minimum form of assistance for all commercial surrogacy cases. It is important to note that the fees given to surrogate mothers today are not necessarily payments for a child. Most states have made it illegal to pay a woman for a child, so the payments given to a surrogate are couched in phrases like "medical assistance, food, and shelter." This is done to eliminate the stigma of baby selling.

The first time a surrogacy case went to court was in 1981. Unlike the more widely known cases like Baby M and *Johnson v. Calvert,* this particular case was about payment. The case was a challenge to Michigan laws that would not allow a payment in exchange for relinquishing parental rights. Leading this case was the so-called father of surrogate motherhood, Noel Keane. He challenged Michigan laws regarding payment to surrogate mothers, but the trial did not go in his favor, and the state upheld its law against fees being paid for a child. In fact, Michigan was so staunchly opposed to surrogacy that it tried to ban surrogacy contracts outright in 1988 and was the first state in the nation to take a stand on surrogacy.

During the 1980s, surrogacy became a more prevalent form of assisted reproductive technology, but it also became more entrenched in legal battles. The law was unable to keep up with the emerging technologies, and before anyone could reconfigure concepts of parenthood, cases like Baby M and *Johnson v. Calvert* took the national stage. When the Baby M case hit the New Jersey courts in 1986, both the United Kingdom and the United States had had their first successful in vitro fertilizations, and surrogacy had taken on new dimensions. The jargon surrounding surrogacy shifted, creating four categories of cases:

1. Traditional surrogacy: a case in which a couple decides to have a child through a surrogate mother, and the husband provides the sperm and the surrogate provides the ovum. In this case, the surrogate mother is the genetic and gestational mother.
2. Gestational surrogacy: a case in which a couple decides to have a child through a surrogate, and the husband and wife provide the necessary gametes. In this case, the surrogate is not genetically linked to the child. Also, gestational surrogacy can occur with the use of anonymously donated sperm and ova, thus creating some potentially difficult legal issues (see *Jaycee B. v.*

the Superior Court of Orange County 1996 and *In re Marriage of John A.B. and Luanne H.B.* 1998).

3. Commercial surrogacy: a case in which a couple pursues surrogacy usually through an agency, paying for the agency services as well as providing financial assistance to the surrogate mother.
4. Noncommercial surrogacy: a case in which a couple pursues surrogacy, usually through a private agreement, in which no fees are exchanged between the couple and the surrogate mother.

The four types of surrogacy are not mutually exclusive. A surrogacy cannot be traditional and gestational at the same time nor commercial and noncommercial concurrently. However, it can be a traditional, commercial surrogacy or even a traditional, noncommercial surrogacy. Depending on the combination of labels, the moral, ethical, and legal ramifications of each surrogacy case increases. Several legal cases have involved surrogacy, but three have received the most media attention: *In re the Matter of Baby M, Johnson v. Calvert,* and *In re Marriage of John H.B. and Luanne A.B.* The three cases have set the precedents for all surrogacy cases and have brought various issues into the national discourse.

The Case of Baby M

When the New Jersey Supreme Court ruled on *In re the Matter of Baby M* in 1988, the case had received an enormous amount of national attention. The case was the first of its kind, with the surrogate mother demanding that the court acknowledge her parental rights. The case of Baby M was a traditional, commercial surrogacy.

William and Elizabeth Stern, the intended parents, had contracted an agreement with Mary Beth Whitehead as the surrogate mother. According to the contract, Whitehead would undergo artificial insemination with Mr. Stern's sperm, carry the child to term, and, upon the child's birth, would relinquish her parental rights to the Sterns. In exchange for fulfilling the contract, Whitehead would receive $10,000.

As the pregnancy advanced, Whitehead had reservations about giving up the child and decided that she wanted to keep it. Upon the birth of Baby M, Whitehead fled to Florida against court orders. When the case went before the Superior Court, the judge upheld the legality of the surrogacy contract and demanded that Whitehead return the child to the Sterns.

Upon appeal, the case went before the New Jersey Supreme Court, where it garnered national media attention. The court, without precedents for surrogacy cases, treated the arrangement between the Sterns and Whitehead as they would a custody battle between divorced parents. Because Elizabeth Stern had no apparent claim to the child, the court did not consider her intent in having a child. The court reversed the Superior Court's

decision on the basis that the contract between the Sterns and Whitehead was illegal. Because the contract outlined payment for a child and the relinquishment of parental rights rather than payment for medical expenses, the contract violated New Jersey public policy and was null and void.

The court, having dismissed the surrogacy contract, then dealt with the issue of custody and the child's best interests. In the hearing, it was decided that the Sterns could provide the best possible environment for Baby M, so they were awarded custody. Unlike the Sterns, Whitehead had recently divorced and was struggling financially—two things the court considered while deciding the best interests of Baby M. However, because she was deemed the biological mother, the court granted her visitation rights.

Baby M was the first case that addressed the lack of a legal framework for dealing with surrogacy issues. Without laws specifically governing surrogacy, the court had to treat traditional surrogacy as it would a custody battle between separated parties. As a result of the media attention, however, nearly every state considered laws to allow, ban, or regulate surrogacy. The Baby M case marks the beginning of public legal and ethical discussions of surrogacy issues. In the middle of the trial, a 1987 poll from the *New York Times* found that a majority of people believed that surrogacy contracts should be upheld—even if the courts seemed to rule otherwise.

The Case of Johnson v. Calvert

Six years after the New Jersey Supreme Court handed down its decision regarding traditional surrogacy in the Baby M case, the California Supreme Court handed down a decision that would inform the general consensus toward gestational surrogacy: *Johnson v. Calvert.* In this case, Mark and Crispina Calvert sought to have a child through a surrogate mother, Anna Johnson.

Anna Johnson offered to be the surrogate mother for the Calverts. Unlike the case of Baby M, where the surrogate also supplied the ovum, Johnson provided the necessary gestation for the child, and Mrs. Calvert provided the ovum. By using in vitro fertilization, Johnson carried the Calverts' genetic child. Under the contractual agreement between the two parties, Johnson would receive $10,000 in installments to help finance medical expenses and basic needs. The Calverts would also insure her life with a $200,000 life insurance policy. In return, Johnson would carry the child to term and recognize the sole parental rights of the Calverts. However, the Calverts and Johnson had a falling out, and both parties filed custody suits.

According to California law (under the Uniform Parentage Act), both Crispina Calvert and Anna Johnson had equal claims to the child, because the law acknowledged the role of genetic and gestational mothers as legal mothers. However, the court decided in favor of Mrs. Calvert based on a consent-intent definition—a definition that has subsequently affected all gestational surrogacy cases. By a consent-intent argument, the legal parents are the people who consented to the procedure with the intention of taking

on parental responsibility. The court argued that any woman could have gestated the resulting child, but only Mrs. Calvert could have provided the ovum. As a result, Mrs. Calvert was the legal mother.

The Case of Jaycee B.

Like the two previous cases, the trials involving Jaycee B. took the national stage, as once again the law struggled to deal with issues that arise from surrogacy. However, unlike Baby M and *Johnson v. Calvert,* Jaycee B. was not a surrogacy case; in fact, the trials surrounding this child were more about child support and deciding the legal parents. The trials were labeled as a surrogacy case gone awry, because Jaycee B. was the result of a rather unusual surrogacy. This case involved a gestational surrogacy in which the genetic material (the sperm and ovum) used to create the child belonged to neither of the intended parents. The intended parents had used anonymous donor sperm and ova, and, under California law, donors are not acknowledged as legal parents.

When the intended parents of Jaycee B., John and Luanne, divorced one month prior to the birth of the child, questions of parentage arose. When John filed for divorce, he listed no children from the marriage and refused to pay child support for Jaycee B. In the media, reports labeled the child as legally parentless because the genetic parents were anonymous donors and the surrogate mother had filed for custody, only to take her petition back when Luanne assured her that Jaycee would be fine. As the divorce trial continued, John refused to acknowledge the child as his own because he was not the biological father. He argued that, because he was not genetically linked to the child, he should not have to pay child support.

The first trial in the matter of Jaycee B. concluded in 1996, *Jaycee B. v. Superior Court of Orange County.* The first trial was meant to decide whether John should pay child support. The Appellate Court declared that, because he had signed the surrogacy contract as an intended parent, he owed child support until such time as a court officially labeled him as other than the father of the child. In 1997, the case became more complicated when a higher court decided that John had no support obligations, that the surrogacy contract was unenforceable, and that Luanne would have to officially adopt the child.

The second trial in the matter of Jaycee B. concluded in 1998, *In re Marriage of John A.B. and Luanne H.B.* This specific trial dealt with the issue of parentage. The court decided that the intended parents of a child of donor gestation are the legal parents. John had argued that, because he had only signed the surrogacy contract and no other legal paperwork, he could not be considered the legal father and thus was not responsible for child support. The 1998 court decision upheld the consent-intent definition of parenthood established by *Johnson v. Calvert,* even in the absence of complete legal written documentation, but with John's full awareness of the situation. Regardless of the lack of a genetic link between John and Jaycee, he was, by intent, her father. The trials involving Jaycee B. were not necessarily surrogacy cases—no surrogate mother was protesting her

parental rights—but the trials illustrate what can happen when U.S. laws do not account for the special needs of surrogacy cases.

Does Surrogacy Aid Infertile Couples or Exploit Women?

The biggest praise that surrogacy receives is that it enables infertile couples to have children that are genetically linked to at least one parent, if not both. In 1999, a study found that 2 million to 3 million couples were infertile. Infertility data, combined with the fewer numbers of children readily available for adoptions, suggest that fewer couples would ever experience their desired parenthood. Surrogacy, when compared with the costs of legal adoption, may be an economically competitive form of having children.

The process can be expensive, with a surrogacy costing a couple anywhere from $10,000 to $60,000 depending on whether the surrogacy is commercial or noncommercial, traditional or gestational. Average domestic adoption costs are $9,000, and the expense increases with a foreign adoption. Both adoption and surrogacy carry a weighty cost for agency and legal fees. In an adoption, the birth mother is not paid anything to compensate her for her pregnancy and childbirth. However, because the intended parents may pay money to the surrogate mother, many critics view surrogacy as exploitation.

The case of Baby M caused an explosion of moral and ethical debates regarding surrogacy. Because the contract between the Sterns and Whitehead outlined that she would be paid upon the birth of the child and her filing to relinquish her parental rights, the courts viewed this as baby selling. Under contract, Whitehead would receive money for additional medical needs, but the $10,000 from the contract was to be given to her upon the birth of Baby M and not before and not in the case of an abortion. Radical feminist critics lashed out about surrogacy, claiming that the act exploited women and children and that it undermined the basic mother-child bond. The stigma of baby selling continues in the dialogue about surrogacy. Even today, when it is widely recognized that surrogacy contracts cannot outline payment for children or the relinquishing of parental rights, critics argue that labeling the payments as being for medical expenses, food, or clothing is a façade. Women are being paid to have children and give them to the purchaser.

The issue of women being paid for pregnancy and childbirth brings up more controversial topics like exploitation of women and children and the commoditization of human capital. Because surrogacy is such an expensive procedure, the process favors the privileged classes while harming lower-class women; rich couples can exploit lower-class women with the promise of money that they might not otherwise be able to earn. Because lower-class women may need the money, they would be more willing than other women to act as surrogates, and, because the current system under which surrogacy operates has little follow-up for surrogates, critics argue that these women are seen as persons of use rather than persons worthy of respect.

Because a monetary figure is attached to a woman's body and the resulting child, critics contend that we have created a market for human capital; we are buying and selling people. Studies question the possible negative effects on a surrogate mother, such as the labels that society places on her and the consequences of separating a mother and child. Others wonder at the outcome for a child who learns that she or he is the result of a surrogacy arrangement. Very few studies follow up on these questions.

However, when we discuss surrogacy and exploitation, we must consider the varying definitions of exploitation. Because harm is a subjective feeling, different surrogate mothers may relate different experiences. A first possible definition of exploitive surrogacy is that the intended parents gain while the surrogate mother is harmed. In this case, the intended parents gain from hurting someone else. Because the intended parents have the economic power, they can demand whatever they wish from the surrogate, and, in return, she is left to acquiesce. A second possible definition of exploitative surrogacy is that both the intended parents and the surrogate gain from the experience, but the intended parents gain more. In this case, the intended parents gain a child and the surrogate gains some kind of monetary compensation. However, because society places a high value on a child's life, but not one that is necessarily monetary, the exchange for a child and $10,000 for expenses is not a fair arrangement. A third possible definition of exploitive surrogacy is that the intended parents gain from an immoral practice. Because surrogacy violates an inherent social norm or religious viewpoint, it has to be exploitative.

The difficulty in assessing accurate data on the exploitative nature of surrogacy is the fact that harm is subjective. Undoubtedly, Whitehead and Johnson might recount similar feelings from their surrogacy experiences, but the unnamed surrogate from the Jaycee B. case might relate a different experience. While they might make the news headlines, in fact less than 1 percent of surrogate mothers change their minds and want to keep the children. Most espouse a more altruistic motive to becoming surrogate mothers. Able to have children, they decided to give a gift to another couple. The *Johnson v. Calvert* case judges cited that a majority of surrogate mothers made between $15,000 and $30,000 per year in income separate from any possible assistance from the surrogacy. Less than 13 percent made below $15,000 per year.

It has been suggested that the primary motive for women to serve as surrogates is the money that they can earn doing so. Money may not be the driving factor for surrogate mothers that some critics of the practice suggest. Early studies of the practice also found women's enjoyment of pregnancy, guilt over a past abortion, or giving a child up for adoption as potential motives in addition to financial compensation. Defenders of surrogacy argue that a woman who chooses to be a surrogate mother solely for some kind of payment would actually make less for the time she invested than if she worked at a low-paying job. Because these women choose to be surrogates—a 24-hour, nine-month job for a minimum of $10,000 of assistance—there must be some other motivation. If

these women choose to be surrogates, the issue of exploitation seems irrelevant. It does not make sense that a woman would commoditize her body, as critics claim, for $1.54 per hour. This figure is derived from the following information: an average pregnancy lasts 270 days for 24 hours each day, totaling 6,480 hours. If a surrogate mother receives the minimum $10,000 of assistance, she makes $1.54 per hour. If she receives $20,000 in assistance, it comes out to $3.09 per hour.

Of course, to consider raising the minimum accepted assistance given for medical and basic needs might also lead to more women choosing to be surrogate mothers because of the money rather than for more charitable motives. Ultimately, surrogacy cannot exist without surrogate mothers. We have yet to find a means of fertilizing an ovum and sperm and gestating the embryo without a gestational mother. The question is: does surrogacy help more than it hurts?

Genetics or Gestation: Who Becomes the Legal Mother?

Despite the scientific developments with artificial reproductive technologies, the law has not moved fast enough to consider surrogacy cases. The federal government has been unable to provide a general law for surrogacy like the equivalent in the United Kingdom, the Surrogacy Act of 1985. The only time federal legislation for surrogacy was introduced was in 1989 when Representative Thomas A. Luken (D-Ohio) and Representative Robert K. Dornan (R-California) introduced two different bills.

Representative Luken presented the Surrogacy Arrangement Bill, which criminalized commercial surrogacy. Anyone who willingly made commercial arrangements—intended parents, surrogate mothers, and agencies—would be subject to legal action. Representative Dornan introduced the Anti-Surrogate Mother Bill, which criminalized all activities relating to surrogacy. The bill would have also made all current surrogacy contracts—commercial and noncommercial—null and void. No one has been able to create a federal surrogacy law, and, as a result, the laws vary from state to state.

GIVING BIRTH TO ONE'S GRANDCHILDREN

In 1991, in one of the most pleasant and well-publicized surrogacy arrangements, a South Dakota woman gave birth to her granddaughter and grandson. Arlette Schweitzer, 43 at the time of the birth, underwent in vitro fertilization by using the eggs from her daughter, Christa, and sperm from her son-in-law, Kevin—the first documented arrangement of this type in the United States. Christa (22 at the time of the birth) had been born with functioning ovaries but without a uterus. Upon learning of this, Mrs. Schweitzer volunteered to gestate her own grandchildren. This gestational surrogacy gained publicity through a TV movie in 1993, *Labor of Love: The Arlette Schweitzer Story.* In 2004 Arlette Schweitzer recounted her surrogacy experience in the book *Whatever It Takes.*

The Baby M case began the legal discussions of surrogacy and prompted debate in law reviews regarding the legal definitions of surrogacy between 1988 and 1990. The New Jersey Supreme Court's decision to treat Whitehead as the legal mother of Baby M was the first case of its kind to decide that legal motherhood is defined by genetics. Because Mrs. Stern had no role in the creation of Baby M, apart from her intent to be a mother, the court did not consider her in the case until it tried to decide the best interests of the child. With a legal vacuum for dealing with surrogacy, the court had to treat the case as a custody battle and treated the surrogacy contract as an adoption contract. However, within a few years, most states had considered some laws dealing with the issues that originated with Baby M.

By the time *Johnson v. Calvert* received national attention, California had already begun a legal dialogue for deciding parentage: the Uniform Parentage Act. According to this act, legal mothers could be determined by either genetics or gestation. This posed a problem with *Johnson V. Calvert* because, according to this definition, both Johnson and Mrs. Calvert had legal claims to the resulting child. The court decided the case based on a consent-intent definition, which claimed that, without the intentions of the Calverts, there would have been no child. The case also solidified the role of genetics in determining legal motherhood. In fact, many people at the time argued that a genetic definition of motherhood would be the best for surrogacy cases. The genetic argument eliminates any potential inconsistencies in surrogacy law, and it is the one contribution to a child that no one else could supply. In the instance that genetics and gestation were bound in the same woman, legal motherhood would be indisputable.

But, again, because surrogacy laws change from state to state, there are no consistent laws for the process. California is the one state that has stayed the most up to date by considering various laws and standards for determining legal motherhood. Currently, there are three different tests for legal motherhood that courts use when deciding cases: intent-based, genetic contribution, and gestation. As previously mentioned, the intent-based definition of legal motherhood originated with *Johnson v. Calvert.* Because there would be no child without the intent of the intended parents, the intended mother is the legal mother. The genetic contribution test is the most foolproof method for determining legal motherhood, because it is the contribution that only the biological donor parent provides. The gestation test is a common law assumption that the birth mother is the legal mother because she devoted time to gestating the child.

The fact that there are three tests for determining legal motherhood, and that each of these tests contradicts the other in some places, suggests a need for more uniform law regarding surrogacy. However, in considering federal laws that would regulate surrogacy at the state level, legislators would have to decide exactly what defines a parent. With only one law to govern surrogacy, there may not be room to consider the special circumstances that can arise from surrogacy cases that do not begin as surrogacy cases, like the trials involving Jaycee B.

Surrogacy as Deviant to Notions of Motherhood

Today, it is impossible to discuss surrogacy apart from issues that range from artificial insemination and donor egg transplantation, the controversy over same-sex couples, and U.S. concepts of motherhood. When discussing the moral, ethical, and legal questions surrounding surrogacy, most people get more than agitated. For some, surrogacy is immoral based on religious convictions. For others, surrogacy exploits women and children, making people commodities much in the way that the 18th- and 19th-century slave trade made people commodities. And yet for others, surrogacy is one of the only chances that they will ever have to have a child.

Surrogacy has enabled couples who may not have been able to have biological children to finally have children. This includes infertile couples as well as same-sex couples. With the rise of same-sex marriage controversies in the early part of the 21st century, surrogacy can become enmeshed as well. Religious zealots against homosexuality may lump surrogacy, despite its ability to give children to heterosexual couples, into a category of immoral behavior. Because surrogacy can provide children for same-sex partners, and because same-sex relationships are labeled morally wrong by these groups, surrogacy must also be morally wrong.

But if we strip down surrogacy to its basic components—that a woman might decide prior to conception to choose to gestate a child for someone else to raise—then we may find that the notions of U.S. motherhood are compromised. If U.S. culture heralds a natural mother-child bond and maternal instinct, then what does surrogacy challenge about our notions of motherhood? If a woman willingly decides to gestate a baby for another couple, what does that say about the notions that mother knows best?

On the one hand, surrogacy does perpetuate the idea that women should become mothers. By allowing infertile couples to have children in ways other than adoption or fostering, more women can become the mothers that society expects them to become. For most people, the act of gestation alone might make a woman a mother. But what kind of mother is she if she does not keep the child? Is a surrogate mother worse than a woman who gives up a child for adoption if the surrogate mother decides before she is pregnant that she will not keep the child?

Some of the same stigmas and stereotypes of adoption are repeated in surrogacy. Over the last 30 years, there has been considerable research into both adoption and surrogacy but very little into the women who give up the children. Arguably, it is because surrogate mothers are deviant mothers. They do not conform to U.S. concepts of motherhood and so have been left out of mainstream research. Surrogate mothers do not reinforce ideas like the naturalness of mothering and the maternal instinct. Despite the fact that the surrogacy cases that have received the most media attention—Baby M and *Johnson v. Calvert*—seemed to argue that women do have an instinctual desire to be mothers, fewer than 1 percent of surrogate mothers have ever contested for any parental rights.

Surrogacy, despite increased popularity as a form of assisted reproductive technology, is still on the outskirts of the U.S. legal framework. Apart from California, most state governments do not have laws guaranteeing the security of either the intended parents or the surrogate mother. The U.S. legal system does not make it possible for a child to have two moms and one dad, or even just two dads (excepting California in a decision from 2005 that changed the Uniform Parentage Act). Because of these limitations, the jargon associated with surrogacy cases is divided, allowing for separations between normal motherhood and deviant motherhood. Surrogacy is either traditional or gestational. It can either be commercial or noncommercial. The language of surrogacy reinforces inherent U.S. notions of good mothers, and a surrogate mother does not fit that role.

See also **Reproductive Technology (vol. 4)**

Further Reading

Crockin, Susan L., and Howard W. Jones Jr., *Legal Conceptions: The Evolving Law and Policy of Assisted Reproductive Technologies.* Baltimore: Johns Hopkins University Press, 2010.

Markens, Susan, *Surrogate Motherhood and the Politics of Reproduction.* Berkeley: University of California Press, 2007.

Schweitzer, Arlette, *Whatever It Takes.* Mandan, ND: Crain Grosinger, 2004.

Shalev, Carmel, *Birth Power: The Case for Surrogacy.* New Haven, CT: Yale University Press, 1989.

Shanley, Mary London, *Making Babies, Making Families: What Matters Most in an Age of Reproductive Technologies.* Boston: Beacon Press, 2001.

T

TEEN PREGNANCY

Santarica Buford

The United States has the highest rates of pregnancy, abortion, and childbirth among teenagers in industrialized nations, a fact that results in considerable social anxiety and controversy. Teen pregnancy is defined as pregnancy among girls and young women age 19 years and younger. A phrase that is used to draw attention to the problems of this behavior is *children having children.* Teen pregnancy leads to adolescents raising children before they are emotionally or financially ready to do so. The rate of teen pregnancy has steadily decreased since reaching an all-time high in the 1990s. The rates have fallen because teenagers today have shown an increased use of long-acting birth control and slight decreases in sexual activity.

Today fewer American young people get married as teens, compared with young people 50 years ago. They do not, however, avoid sexual relationships until marriage. Because they are involved in premarital sexual relations, often with little planning for pregnancy and for the prevention of sexually transmitted diseases (STDs), teens become parents early. This has been a factor in the increase in single-mother families. There are different reasons why teenage girls become pregnant. Teenage girls are likely to become pregnant if they were sexually abused at a young age, in need of someone to love them, or planned for motherhood. Other pregnancies were unintended, because most teens tend to be poorly prepared with contraception and tend to underestimate their chances of conceiving.

Background

Twenty-nine million adolescents are sexually active in the nation, and the number is increasing each year. More than 850,000 teenage girls will become pregnant each year, and close to 500,000 of them will give birth. Estimates are that three-fourths of these pregnancies are unintended. About 90 to 95 percent of teens who carry the pregnancy to term will keep their babies. Surprisingly, the nation's highest teen birth rate occurred in 1957, with 96.3 births per 1,000 teenage girls, compared to 41.9 births per 1,000 teenage girls in 2006. These numbers seem to suggest that teen parenting was more of a problem in the past. That is misleading, however. Most of the births from the 1950s and 1960s were to older teens who were married to their partners. These teens, who married young and had high fertility rates, were the parents of the baby boom generation. Economic instability, a hallmark of teen parenting today, was ameliorated in the 1950s by a strong economy and the likelihood of finding a family-wage job with only a high school education. Because so-called good jobs were available to those with only a high school education, young marriage and childbearing was encouraged by the social circumstances. Also, there was a strong propaganda machine extolling the virtues of stay-at-home mothers. There was a stigma on girls who were out-of-wedlock mothers, so much so that many pregnant teens were sent to live with relatives until the birth, when the infant was then placed for adoption. The alternative was a so-called shotgun wedding in which the couple was persuaded to marry before the pregnancy began to show. In the 1950s and 1960s, more than half of the women who conceived while they were single married before the child was born.

Today, the story is a very different one. The overwhelming majority of teen pregnancies are among unmarried teens. Eighty percent of teenage births occur outside of a marital relationship, and most of the girls have no intention of marrying the father of the child. As the social stigma of teen pregnancy has decreased dramatically over the last 30 years, so has the pressure to marry in order to legitimize a birth. Pregnant teens attend school alongside nonpregnant teens. This is quite a contrast from the days when pregnant girls were forced to drop out or were sent to the reform school for students with behavior problems so that they would not corrupt the nonpregnant girls. The financial circumstances of today's teen mothers are often quite desperate, and many end up seeking public assistance funds. Education beyond high school has become essential for constructing a middle-class life, but many teen mothers experience a truncated educational history, quite unlike what those teen mothers of 50 to 60 years ago experienced when their husbands had high-paying jobs.

A brief discussion of the trends in teen birth in the last 20 years can help us to understand why teen pregnancy has been described as such a problem. In 1986, the birth rate among 15- to 19-year-old women was 50 births per 1,000, but by 1991 that rate had

climbed 24 percent to 62 per 1,000. However, over the next five years, the rate fell to 54 births per 1,000 women ages 15 to 19 (Darroch and Singh 1999). In 2005, the teen birth rate in the United States was 40 births per 1,000 teenage girls. Most data are concerned with the 15- to 19-year-old group because they have higher rates and constitute a much larger proportion of the births to teen mothers. Today research shows that pregnancies among young girls ages 10 to 14 have fallen to their lowest level in the past decade. Thus, in the late 1980s and early 1990s, politicians, families, religious leaders, and educators began to worry about the increases in teenage births and asked what solutions would help turn the trends around.

Race and Ethnicity

Racial and ethnic groups in the United States do not all have the same teen pregnancy and birth rates. Fertility rates among American women are different because of religion, age, and socioeconomic status. During the 1970s and 1980s, African American women had the highest fertility rate, Hispanics had the second highest, and white women had the lowest. Today, however, it is Hispanic women with the highest rate, followed by African Americans and whites. The rate of teen births among blacks has dropped more dramatically than the rates of any other ethnic group. According to the Centers for Disease Control and Prevention, in 2005, the birth rate for Hispanic teens was 82 births per 1,000 girls ages 15 to 19. Comparable data for black and non-Hispanic whites were 61 per 1,000 and 26 per 1,000, respectively. The group with the lowest teen birth rate was Asian and Pacific Islander teens, at 17 per 1,000.

The reasons that birth rates among races differ are because of socioeconomic factors, family structure, and perceived future options. Risk factors for teen pregnancy include living in rural areas and inner cities, where many minority groups are clustered. White adolescent girls are less likely than black or Hispanic girls to carry their pregnancies to term. Because of their economic status and parental pressure, many will end their pregnancies through abortion. Often minority women, particularly those on public assistance, cannot afford abortion, and legislation has changed so that government funds will not cover elective abortion.

Likewise, education and religion can play a role in teen births. Girls who perceive few educational or employment opportunities (usually minority girls) may be more interested in becoming mothers. Pregnancy and mothering may be a way to avoid going to work in low-paying, dead-end jobs. At least they can have control in one aspect of their lives. This is more likely to be the case for black girls. One study in Alabama found more than 20 percent of black teens between the ages of 14 and 18 wished that they were pregnant. For Hispanics, socioeconomic status is also important. However, Roman Catholicism, which disapproves of both birth control and abortion, also plays a role. Hispanic culture places a high value on children, particularly in their ability to contribute to the family group.

Intervention

With the changing patterns of teen pregnancy described above and concerns over the long-term consequences for society from children being reared by teen parents or single parents, calls for intervention have increased. Specifically, prior to the welfare reform of 1996, there was increasing concern over public funds supporting these families and frequent unsubstantiated charges that teens, and other poor single mothers, were having more babies just to increase their welfare benefits. In 1992, the U.S. government realized the importance of considering the experiences of teenage mothers and began pregnancy prevention programs in earnest. These programs, which largely target girls under the age of 16, were designed not only to discourage sexual activity but to educate young people about safer sexual practices. They generally worked off the assumption that all teen pregnancies were unwanted or unintended. While that does seem to be the majority experience, it does not fully describe teen childbearing.

Optimists predicted that these types of programs would reduce the numbers of teen pregnancies by half and increase the provision of sex education and contraceptive services for young people. It did, however, become an issue with parents as well as religiously conservative groups. While there are no definitive data, there is a concern that sex education will encourage teenagers to have sex by making them think more sexual thoughts or providing the sense that adults condone teenage sexual experimentation. Some school districts were concerned about parental reaction should they institute the federal program. Education proponents argued that if teenagers are not educated about sex, they will not know how to protect themselves, and the result will be pregnancy or an STD. Teenagers are curious and they are going to experiment regardless of whether they have had sex education. Proponents argued that another reason why teenagers have sex is peer pressure, and comprehensive sexuality education could help counter that.

Beginning with the George H. W. Bush administration, these education programs focused heavily on teaching young people about abstaining from sexual behavior until marriage. While this drew praise from conservative religious and political groups, it was not well received by those who work directly with teens, suggesting that it was too naive of an approach given the saturation of U.S. media with sexual images. Critical of the emphasis on abstinence of most government programs, sexuality researcher Ira Reiss (1991) has said on many occasions that vows of abstinence break far more easily than do condoms.

The government has not been the only organization working on the issue of teen pregnancy. In 1996, the National Campaign to Prevent Teen and Unplanned Pregnancy, a nonprofit private nonpartisan organization, was founded with the sole goal of reducing teen pregnancy rates by 30 percent in 10 years. Through grassroots work and media influence, it has been largely successful. Despite the decreases in teen pregnancy in recent years, the problems that teen mothers and their children face are daunting.

Problems with Teen Pregnancy

Politicians, educators, clergy, and the general public debate whether teen pregnancy is a serious problem in the United States. The negative consequences of teen pregnancy and parenting have been well documented by public and private agencies, including the well-regarded Annie E. Casey Foundation. The areas of concern include the children, the mothers, and society as a whole. Advocates stress that teen pregnancy is a serious problem, because teen pregnancy is linked to many negative circumstances for both teen parents and their children.

Health

Early childbearing puts teen girls at risk for health problems, both mentally and physically. Teens are at higher risk of death than older women during delivery; two to four times higher by some estimates. Young girls are faced with medical problems such as anemia, hemorrhage, and high blood pressure. These complications are particularly likely in the 10- to 14-year-old age group. Sexually active teens also have high rates of STD transmission, some of which can be passed on to their infants at birth. Infection during pregnancy can cause health problems with the fetus and miscarriage.

Primarily due to inadequate nutrition, adolescents are three times more likely to have a baby with low birth weight or to be delivered prematurely. Infants born to teenage mothers, then, are at greater risk for developmental and physical problems that require special medical care. The younger the teen is, the higher the chance that her baby will die in the first year of life.

Most teenage girls do not admit to being sexually active. When a young girl becomes pregnant, she may not tell anyone because she is in denial or is scared. When a teen does not reveal that she is pregnant, she puts herself and the fetus in serious danger. Teens are less likely to receive prenatal care when they hide their pregnancies from their family. Early and adequate prenatal care, preferably through a program that specializes in teenage pregnancies, ensures a healthier baby. The mother's and baby's health can depend on how mature the young woman is about keeping her doctor appointments and eating healthy. Sometimes, due to insurance limits or government policies, unmarried teens can be denied funding from the government or insurers, making safe pregnancies and deliveries difficult.

Adolescent mothers are more prone to smoke, use drugs, or consume alcohol during pregnancies than are older mothers. Their children are at increased risk of growth delay and dependence on chemical substances from the drug use. Adolescents' children are often in need of speech therapy, because they are behind in development. Teen mothers are less prepared for the tasks of child rearing, know less about child development, and are more likely to be depressed than other mothers.

Adolescent mothers and their children are faced with the same effects as most single-mother families. Single-mother families are one parent raising the children and taking on the role of mother and father. Coupled with teen mothers' greater chances of living in

poverty and having a special-needs child, the tasks of parenting can seem overwhelming. This leads to high levels of stress. Additionally, studies indicate that these young women can have difficulty forming stable intimate relationships later. These concerns are compounded when the teen has inadequate social support.

Economy

One of the largest concerns regarding teen pregnancy is the poverty status of the teens and babies. Pregnancy reduces the likelihood of completing one's education, which—because the less educated a person is, the harder it is to have a good job with benefits—leads to poverty. Around 40 percent of teen mothers receive their high school diplomas. Low academic achievement is both a cause and consequence of teen pregnancy. Estimates suggest that about one-half of all teen moms will receive welfare payments within five years of the birth of their first child. This percentage increases to three-quarters when only unmarried teen mothers are considered.

Teenage childbearing places both the teen mother and her child at risk for low educational attainment. Her children will look at her as a role model; if she got pregnant early and dropped out of school, they may feel they should, too. Women who grow up in poor families are more likely to have been the offspring of a teen pregnancy. The children of teen mothers are more likely to be living in poor neighborhoods where schools may be underfunded, are unsafe, or are of low quality, thus not preparing them for the future. The children of teen mothers, perhaps due to diminished opportunities, can suffer from depression and low self-esteem.

Social Support

The support of family and friends is very helpful and much needed in the circumstance of teen pregnancy. Family and friends might make it possible for the teen to stay in school and continue her education. They can encourage adequate nutrition and prenatal health care. It is clear that there are substantial societal costs from teen pregnancies in the form of lost human capital and public welfare outlays, but support for the teen can assist her in positive parenting and active economic participation.

Teenagers may become sexually active for a number of reasons. Depending on how mature their bodies are, whether they are spending time around sexually active people, or how much television viewing and magazine reading they do, they may develop attitudes consistent with the group. This is why it is not uncommon for friends to become teen mothers and for sisters to have similar early pregnancy experiences. The social network is important in the outcomes. Teens are more at risk of becoming pregnant if they grow up in poverty, use alcohol or drugs, have no support from their family, have fewer friends, and have little interest or involvement in school activities.

There are differences in how families respond to the pregnancy of a teen daughter. More white girls live independently with their child after the birth, suggesting that their parents may be less accepting of such an outcome. Unfortunately, the children of

CROSS-CULTURAL COMPARISONS OF TEENAGE PREGNANCY

Data are consistently clear: teenagers in the United States are significantly more likely than comparable women in other developed countries to become pregnant. The Netherlands, Norway, Sweden, Iceland, France, Australia, New Zealand, Great Britain, and Canada are among the countries that have much lower rates of teen pregnancy than the United States. This leads those who work with teens to hypothesize about what is different for U.S. teens. Several factors are proposed. One is access to contraceptives and other family planning services. Many other nations have national health care systems that significantly reduce the costs of such services, making them easily accessible to all persons. Additional suggestions include American teen's ambivalence toward sexuality. Even though the media are saturated with sexual themes, they rarely communicate responsible attitudes toward sexuality. Risk-taking behaviors and an alienation of some groups from what are considered middle-class values have also been considered.

teens are disproportionately represented among the ranks of children who are abused and neglected, particularly when compared with the children of single mothers in their twenties. The children of teen mothers have a greater chance of themselves becoming teen parents, participating in delinquent acts, and being incarcerated.

Positives of Teen Pregnancy

While it seems that all of the news is bad regarding teen parenting and that more problems are created than solved, some positives can be found in the experiences of teens. Some teens might actually benefit from early childbearing. A small number of teens planned to have their children. These teens are not likely to abuse or neglect their children. They usually finish school and go on to successfully support themselves and their families. These are the teens who are most likely to be married, either before or after the birth, to the father of the child.

General stereotypes of teen mothers describe them as single, poor heads of families, but most teen mothers age 15 to 19 are not living independently with their children. The vast majority lives with relatives, including parents and, sometimes, husbands. By ethnicity, it is whites who are most likely to be living independently and with husbands. African American and Mexican American teens are most likely to be living with family members. This coresidence can provide significant support, both emotionally and financially. Through child care and other family-provided services, young mothers may be able to finish school and gain solid employment. In this way, pregnancy and mothering may only delay, not deny, their pursuit of successful adult lives. Some economists have indicated that black teens gain less of an economic advantage by waiting to have children than do white teens. The common stereotype of irresponsible teens who behave

irrationally by becoming pregnant may need to be reconsidered when it is a response to deficient and discriminatory opportunities.

In some cases, teen pregnancy can be a way out of a troubled home life. Teens suggest that the true benefits of childbearing are having someone to love and someone who loves them. Sometimes the birth of a child can help them to heal scars from their own childhood. Some teens have suggested that they have used pregnancy as a way to leave an abusive home.

Controversies of Teen Pregnancy

Is Teen Pregnancy a Problem?

Although the number of teen pregnancies reached a historic low in 2004, this does not take the focus away from the situation, because teenage girls are still getting pregnant. Politicians, columnists, educators, researchers, and communities continue to argue that it is a serious problem. Almost every bad situation in society is blamed on teen pregnancies. Single parenting, poverty, delinquent children, school failure, drug abuse, child abuse, and crime have all pointed to teen pregnancy and birth as contributing factors. It seems that politicians use these data to raise the alarm in society and draw the public to their campaigns, often with the suggestion that ending poverty will be possible if teen pregnancies stop. Teen pregnancy can contribute to a given young person's chances of being poor, but it does not cause poverty. Many of these girls were living in poverty before getting pregnant. Consequently, teen pregnancy may just be the scapegoat for other social problems.

Sociologist Kristin Luker (1996) argues that adolescent girls are placed in the middle of a conflict between political factions that debate the issue of abstinence-only sex education compared with more comprehensive approaches. She argues that the phenomenon of teen pregnancy has been misidentified. Specifically, she indicates that teen pregnancies do not occur only in the United States. Although our rates might be higher, the problem is not uniquely ours. However, the racial and social class distribution of teen births causes many in the United States to see them as a problem. Significantly, the rates have been declining and are not out of control largely due to improved contraceptive use, particularly of long-acting contraception that does not require daily administration. Given that rates of sexual activity have increased over the same period that teen birth rates have declined, the pregnancy rates could be significantly higher than they are. Young people are physically mature at early ages today—the consequence of better nutrition and overall health—and development of their sexuality accompanies that. Luker also reminds us that the teen birth rate is not new; the mothers of the baby boom often began their child rearing in their late teens.

One of the interesting co-issues of teen pregnancy is why teen mothers are treated so much worse than are teen fathers. Young women face many more negative attributions than do young men. The message to young women seems to be, "we are okay with

you exploring your sexuality; just don't get pregnant while doing so." Given that it takes both partners for conception, one wonders when the fathers will receive comparable scrutiny.

Should Pregnant Teens Marry the Fathers of Their Babies?

A popular suggestion for decreasing the negative effects of adolescent childbearing is for teens to marry the fathers of their children. They already receive pressure to declare the father's identity in order to receive state child support payments through public assistance. In the past, teens were more likely to marry before the birth. Today, however, only about 20 percent of teens marry the child's father before the birth.

When teens are encouraged to and actually get married, their children have a better prospect for success later in life simply because they will have a two-parent family. The two-parent family has many documented advantages over single-parent families. Greater financial stability and more complete socialization of children are cited as reasons why teens should marry. Teens might even hear the suggestion that they have already made one mistake by becoming pregnant; they don't want to make another by failing to provide legitimacy for the child. Teen marriages are actually more stable when children are present, but, on the whole, teen marriages are particularly prone to end in divorce.

Marrying, then, might be the bigger mistake. Most teenage girls do not get pregnant by a teenage boy but by an older man. Data indicate that more than 50 percent of the fathers of teen mothers' babies are between the ages of 20 and 24, around 30 percent of the fathers are adolescents themselves, and 15 percent are 25 or older. When teen mothers do marry, they tend to become pregnant again very quickly.

The suggestion that teens should marry the fathers of their babies fails to consider the long-term issues. The higher rates of dissolution were mentioned above. In both the United States and abroad, premarital pregnancy is correlated with a higher rate of divorce. When men are at least five years older or younger than their wives, they are more likely to divorce. There are also maturity and readiness factors to consider. Lack of coping skills, inadequate preparation for marriage, and fewer life experiences contribute to marital dissatisfaction. There also might be less support from the couple's friends and family for the marriage, which decreases the social pressure for the couple to stay together.

Is Adoption the Answer?

In the current climate of decreased negativity toward nonmarital childbearing, it seems unlikely that large numbers of teens will surrender their babies for adoption. With the stigma of teen parenting has significantly decreased, they may face more negativity for giving the child up for someone else to rear. It has always been the case that more white girls than black girls placed their children for adoption, and that pattern holds today.

However, the rapid decline in numbers of healthy white infants available via adoption has changed the adoption industry and pushed more families to adopt internationally.

Adoption may be the answer in that it permits the teen to get on with her life and allows her child the opportunity to have a two-parent family. Those teens who place their infants for adoption tend to be older, white, have higher educational goals, and are more likely to complete additional job training. They are more likely than teens who rear their children themselves to delay marriage and to live in higher-income households. Certainly there is initial sorrow and regret over the decision to relinquish a child, but these tend to be short-term experiences.

Conclusion

Teenage mothers and their children are at risk of difficulty in the areas of social environment, education, and economics. The major focus on teen parents is on the socioeconomic outcomes of the mother. Literature on teenage mothers continues to show negative long-term consequences for early childbearing, including consistently low levels of education and a greater dependency on welfare. In some cases, people tend to see teen parents as uneducated, intolerant, impatient, insensitive, irritable, and prone to use both verbal and physical punishment. There is evidence that they are more likely than other parents to abuse their children. Economic success greatly depends on continuing school and not having more children. Older literature describes teen mothers as neglectful and unintelligent, but as research is updated, there are more positive effects of teenage parenting for the women and children involved.

See also **Abortion; Birth Control; Poverty and Public Assistance**

Further Reading

Annie E. Casey Foundation, http://www.aecf.org

Centers for Disease Control, "Preventing Teen Pregnancy: An Update in 2009." http://www.cdc.gov/reproductivehealth/AdolescentReproHealth/AboutTP.htm

Darrock, J. E., and S. Singh, "Why Is Teenage Pregnancy Declining? The Roles of Abstinence, Sexual Activity, and Contraceptive Use." In *Occasional Report,* no. 1. New York: Alan Guttmacher Institute, 1999.

Davis, Deborah, *You Look Too Young to Be a Mom: Teen Mothers on Love, Learning, and Success.* New York: Perigee, 2004.

Furstenberg, Frank F., *Destinies of the Disadvantaged: The Politics of Teenage Childbearing.* New York: Russell Sage Foundation, 2007.

Gottfried, Ted, *Teen Fathers Today.* Brookfield, CT: Twenty-First Century Books, 2001.

Hoffman, Saul D., and Rebecca A. Maynard, *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy.* Washington, DC: Urban Institute Press, 2008.

Luker, Kristin, *Dubious Conceptions: The Politics of Teenage Pregnancy.* Cambridge, MA: Harvard University Press, 1996.

National Campaign to Prevent Teen and Unplanned Pregnancy, http://www.thenationalcampaign.org

Planned Parenthood Federation of America, http://www.plannedparenthood.org

Reiss, Ira L., "Sexual Pluralism: Ending America's Sexual Crisis," *SEICUS Report* 19 (1991): 5–9.

Williams-Wheeler, Dorrie, *The Unplanned Pregnancy Book for Teens and College Students.* Virginia Beach, VA: Sparkledoll Productions, 2004.

V

VIDEO GAMES

Garry Crawford

Video games are an important entertainment industry and common leisure pursuit, played by people the world over. However, video games continue to be deeply controversial. Playing video games is often viewed as mainly the activity of adolescent boys, and games are seen as isolating and antisocial, creating a generation of socially dysfunctional and unfit children. Worse still, it is alleged that the often high levels of violence in many video games encourage heightened aggression in the vulnerable young minds of those who play them.

The origins of digital gaming can be traced back to the 1950s, but it was not until the late 1970s and 1980s that digital gaming began to develop as a common leisure activity. Today, video games are a major global industry. Global game sales exceed $48 billion, with the largest game market still undoubtedly in the United States, where game sales in 2008 reached nearly $12 billion. A recent poll by the Entertainment Software Association (ESA) suggested that 42 percent of all Americans planned on purchasing at least one game in the following year. Game sales are now comparable to cinema box office takings, and today more video games than books are sold in the United States and United Kingdom.

Gender

Contrary to popular belief, video game playing is not restricted solely to male adolescents. The ESA suggests that 82 percent of video game players are over the age of 17.

NAME OF THE GAME

The term *video games* is sometimes used to refer to all forms of electronic/digital games played on games consoles, computers, arcade machines, cell phones, and other gaming hardware, and sometimes it is used specifically to refer only to console games. To avoid confusion, some authors and organizations have adopted other terms such as *digital games* or *entertainment software* to refer to all forms of electronic gaming.

Though digital gaming is by no means a level playing field when it comes to gender, the ESA suggests that 47 percent of gamers are female, and in Johannes Fromme's study of over 1,000 German schoolchildren, almost a third of girls (and 55.7 percent of boys) claimed to "regularly" play digital games; it has been suggested that in Korea women make up to close to 70 percent of gamers (Krotoski 2004).

However, statistics on game-playing patterns, particularly in relation to gender, can hide continuing discrepancies and imbalances between the gaming patterns of men and women. Studies suggest that, on average, women continue to be less likely to play video games than men, and those who do play tend to play a lot less frequently than their male counterparts. In particular, these discrepancies are much greater for adult men and women. This is most likely because women's leisure time continues to be more restricted and fractured than men's and because video games continue to be created and marketed primarily toward men and feature stereotypically masculine themes, such as violence and male participation sports, with female characters often absent or sexualized within games (Crawford and Gosling 2005). Technology also continues to be primarily controlled by men (such as the placing of game machines in "male" spaces, such as the bedrooms of brothers), which means that game machines and gaming are infrequently seen as belonging to women within households.

Gaming as Violent

It is evident that violence or violent themes and action are present in a large proportion of video games, with some of the most successful and popular games such as the *Grand Theft Auto* series or *God of War* involving high levels of violent content. Games are now being used for military training and recruitment, such as *America's Army.* Because of this, some express concern that violence in video games can lead to heightened aggression. In particular, due to the interactive nature of gaming, some authors suggest that violence in video games could be more damaging than that seen in television and film. While television viewers are (largely) passive, video games often require players to actively direct the (in-game) aggression, and hence the aggression and violence is more "participatory" (Emes 1997). However, the relationship between violent games and gamers (as with violence on television and viewers) is far from conclusive. In particular, such

research has been heavily criticized for its inconsistent methodologies and small and unrepresentative sample groups. It has also been criticized for overestimating the ability of games to influence the specific attitudes and behavior of individuals or groups and for seeing gamers as passive and vulnerable to representations of violence within games (Bryce and Rutter 2003).

Gamers as "Mouse Potatoes"

A further criticism often leveled at video gaming is that it is an antisocial and isolating activity, producing a generation of passive "mouse potatoes." However, this wholly negative attitude toward video gaming continues to be questioned in ongoing research. One study of over 200 London schoolchildren found no evidence to suggest that those who regularly played video games had fewer friends (Colwell and Payne 2000). Gamers are not "absent," but rather constitute active participants within the games they play. Digital gaming is an expression of human performance and can be a very sociable activity—with gamers playing each other online, meeting at conventions, and, more commonly, playing with friends or family members. In particular, research undertaken for the Interactive Software Federation of Europe suggests that 55 percent of gamers play with others.

Likewise, the argument that playing video games can negatively affect levels of sport participation has been challenged by several authors. For instance, Fromme's study of German schoolchildren found no evidence to support the assertion that playing video games reduces a child's participation in sport. On the contrary, his survey produced some evidence to suggest that daily use of digital games was positively associated with increased levels of sport participation. Similarly, a study of U.K. undergraduate students

MASSIVELY MULTIPLAYER ONLINE ROLE PLAYING GAMES (MMORPGS)

One of the biggest gaming phenomena of recent years has been the rapid growth of MMORPGs, such as *World of Warcraft, EverQuest,* and *Lineage.* These games allow the player to create characters (avatars) that they control and to play out adventures in an online world inhabited by other players from all over the (real) world. Games often allow characters to develop careers not just as warriors or wizards but also dancers, miners, or doctors; some games also allow players to own vehicles, pets, and property (such as houses and shops) and even get married. These games have proved hugely popular with many players, with *EverQuest* frequently referred to by gamers as EverCrack due to its "addictive" qualities. Nick Yee, who until 2009 ran a research Web site (the Daedalus Project) on MMORPGs, suggests that, on average, gamers who play MMORPGs spend 22 hours per week at them. By 2009, the number of players of *World of Warcraft* was about 12 million—greater than the population of Greece.

found no evidence to suggest that playing video games could have a negative affect on patterns of sport participation, but rather that sport-related video games could actually inform and increase both the interest in and knowledge of sport of some game players (Crawford 2005).

Gaming Theory

Video games have also grabbed the attention of researchers eager to understand the interaction between gamers and the games they play. However, different researchers and authors have adopted different approaches to studying video games. In particular, it is possible to identify a divide between theorists (such as Murray 2001), who have sought to understand video games by drawing on and developing a film and media studies approach, and those (such as Frasca 2003), who adopt a more psychologically influenced focus upon patterns of play (a perspective called ludology).

Adopting a media/film studies approach to video games does not simply mean that video games are viewed as interactive films, but it provides certain tools to help gain a more in-depth understanding of video games. For instance, some argue that games can be understood as a text, just as any other media form, such as a book, television show, or film. This text can then be studied to look for meanings, both obvious and hidden. From this perspective, it is also possible to study the narratives (stories and themes) within games in the same way we can with film or to study the rules and conventions of gaming using similar tools to those employed in understanding poetry.

However, some question whether video games can be understood as a text in the same way as older media forms (such as television, radio, and cinema), because, unlike these, video games are not set and rigid but can vary depending on how the player interacts with them (Kerr, Brereton, and Kücklich 2005). This is a similar argument offered by a ludology approach, which suggests that, while traditional media (such as films) are representational (i.e., they offer a simple representation of reality), video games are based on simulation, creating a world that gamers can manipulate and interact with.

Nevertheless, the degree of flexibility within a game should not be overemphasized. In particular, the degree of interactivity a gamer has with, or over, video games has been questioned by numerous authors. For instance, new technologies (such as DVDs) are frequently introduced and sold to the market using the selling point of their increased interactive qualities. The user's level of control or interaction with the medium, though, is still restricted by not only the limitations of technology but also the aims of the designers and manufacturers.

A limitation with early studies that draw on both film/media and ludology approaches is that, in many cases, gamers were frequently seen as isolated individuals rather than understood within a wider social setting. However, there is an increasing awareness of the need to include an understanding of the role and importance of gaming within its social setting, such as how people talk about games with friends and family, how they fit

into leisure patterns and everyday lives, and how they can inform some people's identity and sense of who they are (Crawford and Rutter 2007).

Conclusion

Video gaming today is a major leisure and cultural activity, engaged in by many people all around the world, often taking up a sizable proportion of their leisure time. As with any cultural activity, it is impossible to categorize this as either wholly good or bad. Video games are often violent and can be sexist, homophobic, and racist—as can any media form, such as film, music, and literature. However, video games are also an important industry; they allow people to relax and can be a source of conversation and identity for many. It is therefore important that we understand gaming within a wider social and cultural setting—sometimes as shocking, sometimes awe-inspiring, but more often a relatively normal and mundane pastime engaged in, and discussed, by many.

See also **Violence and Media; Internet (vol. 4)**

Further Reading

Bissell, Tom, *Extra Lives: Why Video Games Matter.* New York: Pantheon, 2010.

Brown, Harry J., *Video Games and Education.* Armonk, NY: M. E. Sharpe, 2008.

Bryce, Jo, and Jason Rutter, "Gender Dynamics and the Social and Spatial Organization of Computer Gaming." *Leisure Studies* 22 (2003): 1–15.

Colwell, John, and J. Payne, "Negative Correlates of Computer Game Play in Adolescents." *British Journal of Psychology* 91 (2000): 295–310.

Crawford, Garry, "Digital Gaming, Sport and Gender." *Leisure Studies* 24, no. 3 (2005): 259–270.

Crawford, Garry, and Victoria K. Gosling, "Toys for Boys? Women's Marginalization and Participation as Digital Gamers." *Sociological Research Online* 10, no. 1 (2005). http://www.socresonline.org.uk/10/1/crawford.html

Crawford, Garry, and Jason Rutter, "Playing the Game: Performance in Digital Game Audiences." In *Fandom: Identities and Communities in a Mediated World,* ed. Jonathan Gray, Cornel Sandvoss, and C. Lee Harrington. New York: New York University Press, 2007.

Egenfeldt-Nielsen, Simon, et al., *Understanding Video Games: The Essential Introduction.* New York: Routledge, 2008.

Emes, Craig E., "Is Pac Man Eating Our Children? A Review of the Effects of Video Games on Children." *Canadian Journal of Psychiatry* 42 (1997): 409–414.

Entertainment Software Association, http://www.theesa.com

Frasca, Gonzalo, "Simulation versus Narrative: Introduction to Ludology." In *The Video Game Theory Reader,* ed. Mark J. P Wolf and Bernard Perron. New York: Routledge, 2003.

Fromme, Johannes, "Computer Games as a Part of Children's Culture." *Game Studies* 3, no. 1 (2003). http://www.gamestudies.org/0301/fromme

Gee, James Paul, *What Video Games Have to Tell Us about Learning and Literacy,* 2d ed. New York: Palgrave Macmillan, 2007.

Kelly, R. V., *Massively Multiplayer Online Role-Playing Games.* Jefferson, NC: McFarland, 2004.

Kerr, Aphra, Pat Brereton, and Julian Kücklich, "New Media—New Pleasures?" *International Journal of Cultural Studies* 8, no. 3 (2005): 375–394.

Krotoski, Aleks, *Chicks and Joysticks: An Exploration of Women and Gaming.* London: Entertainment and Leisure Software Publisher's Association, 2004.

Murray, Janet H., *Hamlet on the Holodeck: The Future of Narrative in Cyberspace.* Cambridge, MA: MIT Press, 2001.

Newman, James, *Videogames.* New York: Routledge, 2004.

Perron, Bernard, and Mark J. P. Wolf, eds., *The Video Game Theory Reader 2.* New York: Routledge, 2008.

Rutter, Jason, and Jo Bryce, eds., *Understanding Digital Games.* Thousand Oaks, CA: Sage, 2006.

Vorderer, Peter, and Jennings Bryant, eds., *Playing Video Games: Motives, Responses, and Consequences,* Mahwah, NJ: Lawrence Erlbaum, 2006.

Yee, Nick, *The Daedalus Project.* http://www.nickyee.com/daedalus

VIOLENCE AND MEDIA

Talmadge Wright

Concerns about media and violence have historical roots going back to the Victorian era, when the newly emerging middle classes expressed anxiety over the working class reading "penny dreadfuls" instead of more wholesome fare such as "morally uplifting" literature. The modern era, on the other hand, led to numerous studies that have become known as the "media effects" literature, which has sought to demonstrate a causal connection between media representations and acts of real violence. While some claim to have demonstrated behavioral effects of media violence, critics charge that the research is flawed in various ways. Many also claim that debates over media and violence are often a cover for other anxieties that remain too threatening for many people to talk about. What are the real issues being concealed by the debates over media and violence?

For the past 40 years, researchers have been investigating what effects exposure to violent images have on children and adults, especially with regard to stimulating aggression or aggressive thoughts. The results of this mountain of studies remain inconclusive, with causal links between images of violence and actual violent or aggressive behavior hard to track with any degree of accuracy. Early studies attempted to document the impact that violent movie images had on children, followed by television images and now video game interactions. Critics say these research models are flawed and suffer in differing degrees from inadequately defined objects of study, inconsistent definitions, misapplied research methodologies, experimental limitations, and grossly simplified models of human behavior. Nevertheless, these studies have shaped public debate on the

relationship of media technology, play, and child development. A brief word is in order about what concepts these studies have been based upon and the definitions of violence and aggression that underlie them.

The obvious question to ask is what is meant by violence and aggression with regard to media and its effect on people. The problem resides in both the conflation of real violence with its representation in TV, film, or video games and in what activity is presumed to be violent or aggressive. In some studies, the Three Stooges, Roadrunner, and Bugs Bunny are placed in the same category as horror slasher films and real news violence, simply based on the actions of the characters involved—who hit whom, how often, and so on. There is no meaningful distinction drawn between real and fictional violent representations or between types of fictional violent representations and their contexts. The second point is the meaning of effects. It is presumed that media have effects on people, but what those effects are is presumed to revolve around aggressive or passive activity, as if these are the only ways to understand how media influences individual behavior. For example, we rarely ask what kind of effect book reading, bicycling, or playing football has on subjects unless we have a predetermined answer in mind. Thus, some people would object to others reading certain kinds of books because of the violent or sexual imagery conveyed through words. However, this speaks less to the position of the reader and more to the concerns of the one objecting to the material. In other words, what is measured, if anything, is more the subjective concern of the researcher or the offense to those who would act as moral arbiter and less the actual effect on the subject in question. Those skeptical of media effects studies charge that researchers consistently draw spurious causal connections between data that remain mere correlations and point to the following conceptual confusion and logical flaws: (1) the simplistic theories of self used by some psychologists and child development specialists; (2) the moral agendas of political figures and those with a religious or cultural objection to media representations; and (3) legitimate concerns by parents who perceive their children as "out of control."

Models and Traditions of Research

Social learning theory, developed by psychologist Alberto Bandura in the 1970s, is a modification of B. F. Skinner's behaviorist theories applied to adolescents and aggression. His research attempted to understand the interactions between the self and environment (reciprocal determinism) and set the initial standard for conducting studies of media and violence. Based on principles of observational learning or modeling therapy and self-regulation, Bandura illustrated his points with the famous Bobo doll studies. In these experiments, he had a fellow experimenter strike a Bobo doll, designed for that very purpose, while children observed on a TV monitor. When given the Bobo doll, the same children proceeded to strike the doll as they had witnessed. This was considered evidence that children model the behavior of others. What was not considered was the meaning

the Bobo doll had for the children. The doll was designed to be struck, so this tells us little about aggression connected to modeling behavior, other than the children figured out this is what you are supposed to do with this type of toy. What was demonstrated was the authority of the experimenter more than any inherent aggression as a by-product of modeling behavior.

Bandura claimed that effective modeling depended on various degrees of attention, retention, motor reproduction, and motivation. He argued that children model the behavior of adults and other children, including media representations; hence, the concern over the consumption of violent media images. While this can explain the fact that people do model the behavior of others—even virtual others—it cannot explain what that modeling means to the individual. The issue of motivation is central but cannot be answered by this type of behaviorist framework, because it does not offer an explanation for how interpretation can modify behavior. How do children, in fact, understand violent media representations, and do they make distinctions between real and fictional violence?

Anderson and Bushman's General Aggression Model (GAM), based on the earlier work of Bandura and others, attempted to go beyond the limitations of social learning theory, assigning priority to feelings, thoughts, and physical responses to violent media in specific situations leading to a presumed interpretation on the part of the subject. The problem, however, resides in how the GAM understands violence and aggression. The GAM perspective is often guilty of conflating the violence of horror films and shooter video games with the supposed earlier violence of Pac-Man, argued as desensitizing the public to real-life violence. Again, the issue is one of understanding the differences between real-life aggression and violence and fantasy aggression or violence. This conflation is made consistently by critics of violent media representations.

The catharsis model, meanwhile, assumed that consuming violent media works to *lower* aggression, to "let off steam." A favorite position of defenders of violent films, TV shows, and video games, the catharsis model was based on the work of Seymour Feshbach and Robert D. Sanger, in *Television and Aggression: An Experimental Field Study,* conducted in 1971. This model attempted to offer evidence that people can benefit from consuming violent fantasies since they can provide a safe way of coping with anxieties and general fears. Unfortunately, their studies have not been adequately replicated and remain more of a hypothesis than a testable reality.

The cultivation theory of George Gerbner, former dean of the Annenberg School for Communication at the University of Pennsylvania, proposed a broader cultural or ideological critique of violent media. Often referred to as the "mean world syndrome," cultivation theory used content analysis and surveys, avoiding the problems of the experimental laboratory setup. Cultivation theory argued that heavy consumption of media led to the cultural effects of political passivity and a greater tolerance for real-world violence. The problem here is that fearful people may be drawn to watching more television

for a variety of reasons, which points out the additional problem of not addressing individual variations in how people consume and understand media.

Critics of Effects Research

Jonathan Freedman, in *Media Violence and Its Effect on Aggression: Assessing the Scientific Evidence,* examined most of the experimental studies conducted on violence in media and found them lacking in consistent definitions of what constitutes aggression or violence and containing flawed methods of research and a continuing confusion of correlation with causation. The work of Barker and Petley in their volume, *Ill Effects: The Media/Violence Debate,* along with the work of David Gauntlett in that same book, deepens the critique voiced by Freedman. One of the major flaws of these studies is their set of assumptions about human subjects. These assumptions give no room for people, children, or adults to interpret or make sense of their own actions. Meaning, though, is important. How we understand fantasy and reality, imagination and reason, aggressive play and real assault, is critical in our ability to assess risk to ourselves and to others. The media effects perspective, unfortunately, does not take meaning seriously, assuming that people are either overtly or covertly manipulated into believing and acting the way that they do simply by exposure to media images. The larger social context within which we understand images, our everyday lives, families, social groups, and so forth is almost never integrated into this type of research on media and violence.

For example, Jeffrey Goldstein argues that the absence of volition in media effects research combined with not taking seriously the social context of media consumption distorts the understanding of the role media play in the lives of children and adults. Some researchers take this lack of choice even further, arguing that the meanings we make of media violence are not significant, because our making sense of the world is only accomplished through predetermined social lenses that condition us to look at the world in a very specific way—what is often called interpolation. This position is refuted by the research of James Tobin, who in *Good Guys Don't Wear Hats: Children's Talk about the Media* looked at how children actually understood the film medium, violent or otherwise, and pointed out the wide variety of interpretations children make of their experiences with media. Violent images may frighten one child and simply bore another. One cannot find a given interpretation as the correct one way to understand fictional violence over any other.

The real social lives of humans, our families, friends, and authority figures—that is, the larger social context—do indeed shape our responses to violent media images. The degree to which each of these variables influences behavior, and the combination of these multiple influences on behavior, has proven to be the most difficult measure for media researchers. Further complicating research models remains the distinction between fantasy violence and real violence, a differentiation especially important for children. Children must make these distinctions in order to understand how to survive

MORAL PANICS AND MEDIA FEARS

Moral panic was a term originally developed by Stanley Cohen in his 1972 book *Folk Devils and Moral Panics: The Creation of Mods and Rockers*. He described the organized public campaign of harassment against the emerging youth subculture of mods and rockers by the media and agents of public control, law enforcement, politicians and legislators, action groups, and the public at large. This panic over an emerging youth subculture was stimulated by converting mods and rockers into folk devils, as repositories of public anxieties over widespread social change. Erich Goode and Nachman Ben-Yehuda in *Moral Panics: The Social Construction of Deviance* as well as Barry Glassner's *The Culture of Fear: Why Americans Are Afraid of the Wrong Things* and Karen Sternheimer's *It's Not the Media: The Truth about Pop Culture's Influence on Children* extend this analysis to all types of media representations. Earlier examples of media moral panics can be seen during the 1950s with the moral campaign, organized by Dr. Fredric Wertham, a New York psychiatrist, that attacked horror comic books as contributing to juvenile delinquency. As John Springhall points out in his book, *Youth, Popular Culture and Moral Panics: Penny Gaffs to Gangsta-Rap, 1820–1996*, these patterns of social dread reflected the anxiety and fears of an emerging middle class over a corruptible working class who ignored socially "uplifting" reading in favor of "dime novels" or "penny dreadfuls." Harold Schechter, in *Savage Pastime: A Cultural History of Violent Entertainment,* describes the extreme forms of entertainment that both the middle and working classes of pre-Victorian Europe enjoyed, making modern-day panics over television, film, and video game violence seem silly by comparison.

in the real world. Adults can more easily blur these distinctions if they have already established what is real and what is fantasy to begin with. Tobin's studies demonstrate that children make this distinction between fantasy and reality at a very early age.

Hence, it is not surprising that advertisers and filmmakers work hard to break these barriers down in order to cement audience identification with the product or film work at an early age. However, the fact that customers, whether children or adults, play with these boundaries through their own critiques, jokes, parodies, imitations, and other forms of meaning-making, indicates that humans are active producers often at odds with commercial producers.

Moral Panics and Moral Entrepreneurs

The persistence of controversy around media effects research may be understood as a deeper crisis in how we think of children, technology, and threats in the modern world. These periodic concerns expressed as anxiety over media violence are given the term *moral panics*.

Moral panics are public campaigns that often call for censorship or express outrage at behavior or fantasies of particular lower-status social groups when those same

groups are perceived as escaping the control of the dominant status group. They occur often during periods of social and technological change and may crystallize around a particular emotional issue. The early Salem witch burnings were facilitated by the panic induced by male clergy members who felt threatened by the increasing power of women in the church. Closer to our time period, concerns over comic books, pool hall attendance, heavy metal and rap music, television violence and sex, films, and a host of media activities have come under public scrutiny for their supposed corruption of morals and youth. In the 1980s, the Parents Music Resource Center went after heavy metal bands for their supposed effect on youth and the belief that such music caused teenage suicides. Today, it is conservative groups like Focus on the Family attacking Barbie dolls and Shrek or the Parents Television Council decrying acts of television violence and gore, while liberal groups attack the computer games *Manhunt* and *Grand Theft Auto* for their racial and gender stereotypes and simulated sex in hidden codes. While racists and sexist attitudes persist in U.S. society, the degree to which media cause those attitudes has yet to be demonstrated by effects research, and media and First Amendment scholars argue that the values of an open society and that the attendant civil liberties enjoyed therein outweigh unproven media effects assertions.

What is interesting is that, in most of the qualitative studies of children and media violence, when asked whether they were affected by violent images, most children responded with the assertion that they were not affected, but their younger peers were affected. Middle-class parents often voiced the same concerns—they are not affected but those lower-class folks down the block might be harmed. In other words, the panic over media and violence can be clearly viewed as a panic over status and power, with the

MORAL ENTREPRENEURS AND MEDIA CONSUMPTION

Originally coined by the sociologist Howard Becker in his 1963 work, *Outsiders: Studies in the Sociology of Deviance,* moral entrepreneurs work as crusading reformers attempting to clean up what they perceive as the failure of lower-status groups. With humanitarian intents, such groups and individuals often work in a paternalist fashion to shape the behavior of those in social classes below them, usually taking on and being offended by the representations of working- or lower-class culture. Moral entrepreneurs work to mobilize social groups and the public at large against what they perceive as threats to the dominant social order, helping to define what is considered deviant behavior. The use of labeling and stereotyping often operates in constructing definitions of what is deviant. These labels are, in turn, used by moral entrepreneurs to support their actions against the offending representations. For example, by invoking moral outrage against rock music, the Parents Music Resource Center signaled to concerned parents that it shared their values and concerns. This solidarity is, in turn, cemented by creating an out group, while reinforcing the prejudices of the in group.

higher-status groups—parents over children, middle class over working or lower class, whites over blacks, and so on—asserting their so-called moral authority in order to protect some supposed moral boundary of society.

The fact that these concerns over media and violence are most often promoted by advocacy groups who claim that they have children's welfare at stake, as well as media pundits, politicians looking for votes, and professional experts and organizations, indicates that the issue of media violence is one that lends itself to the work of moral entrepreneurs. Occupying a privileged position in society, such moral entrepreneurs are able to exploit their social position to assert their authority in reinforcing conventional "common-sense" folkways that appeal to many parents anxious over the behavior of their children.

"Out of Control": Fears of Youth and Technology

The third point, that parents feel their children are out of their control, is understandable given the rapid rates of technological change, the decrease in public play areas, the rise of the Internet, and the expansion of widespread social and political inequality leading to less opportunities in life for members of both the working and middle classes. According to Henry Jenkins of the University of Southern California's Annenberg School for Communication, the moral panic that surrounds the issues of violence and media can be traced to fear and anxieties over adolescent behavior, a fear of new technology, and the expansion of youth culture throughout the media landscape into all areas of everyday life. In addition, the deep fear of the intermingling of the private and public spheres of everyday life is expressed not only in terms of parental fear of children being exposed to media violence but also in images of sexuality and online predatory behavior. Given the widespread adult ignorance of technology and science, it should not be surprising that when their son or daughter knows more about the technology than they do, parents feel at a distinct disadvantage. Such competency on the part of one's children raises a host of questions about parental authority as well as ideas of childhood innocence, which is challenged as children gain more knowledge through the Internet, television, and film.

Conclusion

The old Victorian myth of innocent children without greed, desire, or competency is under attack. The response by parents is often to either demonize children, ignore them, or idealize them as little angels, all revealing a lack of understanding of the complex reality of childhood in the modern world. But seeing technology and media violence as destroying the innocence of childhood is just as misleading as assuming that children are powerful liberators of modern technology and can easily withstand onslaughts of media violence. What is required, as Gerard Jones points out in *Killing Monsters: Why Children Need Fantasy, Super Heroes, and Make-Believe Violence,* is for children to feel safe

in playing with their fantasy monsters, whether it is in a book, on television, in film, or in a video game. Playing with and killing monsters in a fantasy world may be just another way to keep these monsters from becoming our everyday harsh realities.

See also **Video Games; Marketing to Children (vol. 1); Internet (vol. 4)**

Further Reading

Anderson, Craig A., and B. J. Bushman, "Human Aggression." *Annual Review of Psychology* 53 (2002): 27–51.

Anderson, Craig A., Douglas A. Gentile, and Katherine E. Buckley, *Violent Video Game Effects on Children and Adolescents: Theory, Research, and Public Policy.* New York: Oxford University Press, 2007.

Bandura, Albert, *Aggression: A Social Learning Analysis.* Englewood Cliffs, NJ: Prentice Hall, 1973.

Bandura, Albert, *Social Learning Theory.* New York: General Learning Press, 1977.

Barker, Martin, and Julian Petley, eds., *Ill Effects: The Media/Violence Debate.* New York: Routledge, 2001.

Becker, Howard, *Outsiders: Studies in the Sociology of Deviance.* New York: Free Press, 1997.

Buckingham, David, *After the Death of Childhood: Growing up in the Age of Electronic Media.* Malden, MA: Polity, 2005.

Cohen, Stanley, *Folk Devils and Moral Panics,* 3d ed. London and New York: Routledge, 2002.

Feshbach, Seymour, and Robert D. Singer, *Television and Aggression: An Experimental Field Study.* San Francisco: Jossey-Bass, 1971.

Freedman, Jonathan L., *Media Violence and Its Effect on Aggression: Assessing the Scientific Evidence.* Toronto: University of Toronto Press, 2002.

Gauntlett, David, "The Worrying Influence of 'Media Effects' Studies." In *Ill Effects: The Media/Violence Debate,* eds. Martin Barker and Julian Petley. New York: Routledge, 2001.

Gerbner, George, Larry Gross, Michael Morgan, and Nancy Signorielli, "Growing Up with Television: The Cultivation Perspective." In *Media Effects: Advances in Theory and Research,* ed. Jennings Bryant and Dolf Zillman. Hillsdale, NJ: Lawrence Erlbaum, 1994.

Glassner, Barry, *The Culture of Fear: Why Americans Are Afraid of the Wrong Things.* New York: Basic Books, 1999.

Goldstein, Jeffrey H., "Does Playing Violent Video Games Cause Aggressive Behavior?" *Playing by the Rules: The Cultural Policy Challenges of Video Games Conference,* Cultural Policy Center, University of Chicago. October 27, 2001. http://culturalpolicy.uchicago.edu/conf2001/papers/goldstein.html

Goldstein, Jeffrey H., *Why We Watch: The Attractions of Violent Entertainment.* New York: Oxford University Press, 1998.

Goode, Erich, and Nachman Ben-Yehuda, *Moral Panics: The Social Construction of Deviance,* 2d ed. Hoboken, NJ: Wiley-Blackwell, 2009.

Jenkins, Henry, *Fans, Bloggers, and Gamers: Exploring Participatory Culture.* New York: New York University Press, 2006.

Jones, Gerard, *Killing Monsters: Why Children Need Fantasy, Super Heroes, and Make-Believe Violence.* New York: Basic Books, 2002.

Schechter, Harold, *Savage Pastime: A Cultural History of Violent Entertainment.* New York: St. Martin's Press, 2005.

Springhall, John, *Youth, Popular Culture and Moral Panics: Penny Gaffs to Gangsta-Rap, 1820–1996.* New York: St. Martin's Press, 1998.

Sternheimer, Karen, *It's Not the Media: The Truth about Pop Culture's Influence on Children.* Boulder, CO: Westview Press, 2003.

Tobin, Joseph, *Good Guys Don't Wear Hats: Children's Talk about the Media.* New York: Teachers College Press, 2000.

Trend, David, *The Myth of Media Violence: A Critical Introduction.* Hoboken, NJ: Wiley-Blackwell, 2007.

Bibliography

Family, Marriage, and Divorce

AARP, http://www.aarp.org

Adoption Media, http://www.adoption.com

Ahrons, Constanct, *We're Still Family: What Grown Children Have to Say about Their Parents' Divorce.* New York: Harper Paperbacks, 2005.

Almanac of Policy Issues, http://www.policyalmanac.org

American Civil Liberties Union, http://www.aclu.org/religion/index.html

Berg-Weger, Marla, *Caring for Elderly Parents.* New York: Garland Publishing, 1996.

Cantor, Donald J., et al., *Same-Sex Marriage: The Legal and Psychological Evolution in America.* Middletown, CT: Wesleyan University Press, 2006.

Celello, Kristin, *Making Marriage Work: A History of Marriage and Divorce in the United States.* Chapel Hill: University of North Carolina Press, 2009.

Child Welfare League of America, http://www.cwla.org

Clayton, Obie, et al., eds., *Black Fathers in Contemporary American Society: Strengths, Weaknesses, and Strategies for Change.* New York: Russell Sage Foundation, 2005.

Coles, Roberta L., and Charles Green, eds., *The Myth of the Missing Black Father.* New York: Columbia University Press, 2010.

Coontz, Stephanie, *The Way We Never Were: American Families and the Nostalgia Trap.* New York: HarperCollins, 1992.

Crittenden, Ann, *The Price of Motherhood: Why the Most Important Job in the World Is Still the Least Valued.* New York: Henry Holt, 2002.

Demo, David, and Mark A. Fine, *Beyond the Average Divorce.* Thousand Oaks, CA: Sage, 2009.

Dorow, Sara K., *Transnational Adoption: A Cultural Economy of Race, Gender, and Kinship.* New York: New York University Press, 2006.

Douglas, Susan, and Meredith Michaels, *The Mommy Myth: The Idealization of Motherhood and How It Has Undermined All Women.* New York: Free Press, 2004.

Drescher, Jack, and Deborah Glazer, *Gay and Lesbian Parenting.* New York: Informa Healthcare, 2001.

Duerr, Jill, and Bruce Fuller, eds., *Good Parents or Good Workers? How Policy Shapes Families' Daily Lives.* New York: Palgrave Macmillan, 2005.

Emery, Robert E., *Marriage, Divorce and Children's Adjustment,* 2d ed. Thousand Oaks, CA: Sage, 1999.

Family Research Council, http://www.frc.org

Focus on the Family, http://www.family.org

Gailey, Christine Ward, *Blue-Ribbon Babies and Labors of Love: Race, Class, and Gender in U.S. Adoption Practice.* Austin: University of Texas Press, 2010.

Hamer, Jennifer, *What It Means to Be Daddy: Fatherhood for Black Men Living Away from Their Children.* New York: Columbia University Press, 2001.

Hays, Sharon, *The Cultural Contradictions of Motherhood.* New Haven, CT: Yale University Press, 1998.

Heins, Marjorie, *Not in Front of the Children: "Indecency," Censorship, and the Innocence of Youth.* New York: Hill and Wang, 2001.

Henry, Stella Mora, with Ann Convery, *The Eldercare Handbook: Difficult Choices, Compassionate Solutions.* New York: HarperCollins, 2006.

Hetherington, E. Mavis, and John Kelly, *For Better or For Worse: Divorce Reconsidered.* New York: W. W. Norton, 2002.

hooks, bell, *Ain't I a Woman: Black Women and Feminism.* Boston: South End Press, 1981.

Johnson and Johnson, Caregiver Initiative. http://www.strengthforcaring.com

Mandel, Deena, *Deadbeat Dads: Subjectivity and Social Construction.* Toronto: University of Toronto Press, 2002.

Metz, Tamara, *Untying the Knot: Marriage, the State, and the Case for Divorce.* Princeton, NJ: Princeton University Press, 2010.

National Aging in Place Council, http://www.naipc.org

National Council for Adoption, http://www.adoptioncouncil.org

Patton, Sandra, *BirthMarks: Transracial Adoption in Contemporary America.* New York: New York University Press, 2000.

Pinello, D. R., *America's Struggle for Same-Sex Marriage.* New York: Cambridge University Press, 2006.

Quiroz, Pamela Ann, *Adoption in a Color-Blind Society.* Lanham, MD: Rowman & Littlefield, 2007.

Rimmerman, Craig A., and Clyde Wilcox, *The Politics of Same-Sex Marriage.* Chicago: University of Chicago Press, 2007.

Rose, E., *A Mother's Job: A History of Day Care 1890–1960.* New York: Oxford University Press, 1999.

Strong, Bryan, Christine DeVault, and Theodore. F. Cohen, *The Marriage and Family Experience,* 11th ed. Belmont, CA: Wadsworth, 2010.

United States Department of Health and Human Services, http://www.hhs.gov

Yancy, George A., and Richard Lewis Jr., *Interracial Families: Current Concepts and Controversies.* New York: Routledge, 2009.

Children and Young People

Agnew, Robert, *Juvenile Delinquency: Causes and Control,* 3d ed. New York: Oxford University Press, 2008.

Bernstein, Nina, *The Lost Children of Wilder: The Epic Struggle to Change Foster Care.* New York: Vintage Books, 2001.

Bitensky, Susan H., *Corporal Punishment of Children: A Human Rights Violation.* Ardsley, NY: Transnational, 2006.

Brown, Lyn Mikel, *Girlfighting: Betrayal and Rejection among Girls.* New York: New York University Press, 2003.

Brumberg, Joan Jacobs, *The Body Project: An Intimate History of American Girls.* New York: Random House, 1997.

Child Welfare Information Gateway, http://www.childwelfare.gov

Child Welfare League of America, *Quick Facts about Foster Care.* Washington, DC, 2010. http://www.cwla.org/programs/fostercare/factsheet.htm

Childhelp USA Foundation, http://www.childhelpusa.org

Children's Defense Fund, http://childrensdefense.org

Clark, Alison, and Virginia Allhusen, *What about Childcare.* Cambridge, MA: Harvard University Press, 2005.

Crowley, Jocelyn, *The Politics of Child Support in America.* New York: Cambridge University Press, 2003.

Disch, Estelle, *Reconstructing Gender: A Multicultural Anthology.* Boston: McGraw Hill Higher Education, 2009.

Donnelly, Michael, and Murray A. Stras, eds., *Corporal Punishment of Children in Theoretical Perspective.* New Haven, CT: Yale University Press, 2005.

Krebs, Betsy, *Beyond the Foster Care System: The Future for Teens.* New Brunswick, NJ: Rutgers University Press, 2006.

Lindsey, D., *The Welfare of Children.* New York: Oxford University Press, 1994.

National Association of Former Foster Care Children of America, http://www.naffcca.org

National Foster Parent Association, *History of Foster Care in the United States.* Washington, DC, 2007. http://www.nfpainc.org/content/index.asp?page=67&nmenu=3

Pew Commission on Children in Foster Care, http://pewfostercare.org

Pickering, Kathleen, et al., *Welfare Reform in Persistent Rural Poverty: Dreams, Disenchantment, and Diversity.* University Park: Pennsylvania State University Press, 2006.

Prothrow-Stith, Deborah, *Deadly Consequences: How Violence Is Destroying Our Teenage Population and a Plan to Begin Solving the Problem.* New York: HarperCollins, 1991.

Quinn, William H., *Family Solutions for Youth at Risk: Applications to Juvenile Delinquency, Truancy, and Behavior Problems.* New York: Brunner-Routledge, 2004.

Ramsey, Sarah H., and Douglas E. Abrams, *Children and the Law in a Nutshell,* 2d ed. St. Paul, MN: Thomson/West, 2003.

Urban Institute, http://www.urban.org

Waldfogel, Jane, *What Children Need.* Cambridge, MA: Harvard University Press, 2008.

Wozniak, Danielle F., *They're All My Children: Foster Mothering in America.* New York: New York University Press, 2002.

Zigler, Edward, Katherine Marsland, and Heather Lord, *The Tragedy of Child Care in America.* New Haven, CT: Yale University Press, 2009.

Family and Economic Issues

Blair-Loy, Mary, *Competing Devotions: Career and Family among Women Executives.* Cambridge, MA: Harvard University Press, 2005.

Blank, Rebecca, and Ron Hoskins, *The New World of Welfare.* Washington, DC: Brookings Institution Press, 2001.

Blau, J., *The Visible Poor.* New York: Oxford University Press, 1993.

Cancian, Maria, and Sheldon Danziger, eds., *Changing Poverty, Changing Policies.* New York: Russell Sage Foundation, 2009.

Chappell, Marisa, *The War on Welfare: Family, Poverty, and Politics in Modern America.* Philadelphia: University of Pennsylvania Press, 2010.

Currie, Janet M., *The Invisible Safety Net.* Princeton, NJ: Princeton University Press, 2006.

Grogger, Jeffrey, and Lynn A. Karoly, *Welfare Reform: Effects of a Decade of Change.* Cambridge, MA: Harvard University Press, 2005.

Hesse-Biber, Sharlene, and Gregg Lee Carter, *Working Women in America: Split Dreams.* New York: Oxford University Press, 2004.

Hochschild, Arlie Russell, *The Time Bind: When Work Becomes Home and Home Becomes Work.* New York: Henry Holt, 2001.

Jencks, C., *The Homeless.* Cambridge, MA: Harvard University Press, 1995.

Landry, Bart, *Black Working Wives: Pioneers of the American Family Revolution.* Berkeley: University of California Press, 2002.

McNamara, Robert Hartmann, *Homelessness in America.* Westport, CT: Greenwood Press, 2008.

Padavic, Irene, and Reskin, Barbara, *Women and Men at Work.* Thousand Oaks, CA: Pine Forge Press, 2002.

Williams, Joan, *Unbending Gender: Why Family and Work Conflict and What to Do about It.* New York: Oxford University Press, 2001.

Family Medical, Behavioral, and Ethical Issues

Ali, Syed F., and Michael J. Kuhar, eds., *Drug Addiction: Research Frontiers and Treatment Advances.* Boston: Blackwell, 2008.

Annie E. Casey Foundation, http://www.aecf.org

Assael, Shaun, *Steroid Nation: Juiced Home Run Totals, Anti-Aging Miracles, and a Hercules in Every High School.* New York: ESPN Books, 2007.

Beamish, R., and Ritchie, I., *Fastest, Highest, Strongest: A Critique of High-Performance Sport.* London: Routledge, 2006.

Bonnie, Richard J., and Robert B. Wallace, *Elder Mistreatment: Abuse, Neglect, and Exploitation in an Aging America.* Washington, DC: National Academies Press, 2003.

Bruch, Hilde, *The Golden Cage: The Enigma of Anorexia Nervosa.* Cambridge, MA: Harvard University Press, 1978.

Brumberg, Joan Jacobs, *Fasting Girls: The History of Anorexia Nervosa.* Cambridge, MA: Harvard University Press, 1988.

Burnham, John, *Bad Habits: Drinking, Smoking, Taking Drugs, Gambling, Sexual Misbehavior, and Swearing in American History.* New York: New York University Press, 1994.

Campbell, Nancy D., *Discovering Addiction: The Science and Politics of Substance Abuse Research.* Ann Arbor: University of Michigan Press, 2007.

Caron, Simone M., *Who Chooses? American Reproductive History since 1830.* Gainesville: University Press of Florida, 2008.

Castellani, Brian, *Pathological Gambling: The Making of a Medical Problem.* Albany: State University of New York Press, 2000.

Centers for Disease Control, "Preventing Teen Pregnancy: An Update in 2009." http://www.cdc.gov/reproductivehealth/AdolescentReproHealth/AboutTP.htm

Cheever, Susan, *Desire: Where Sex Meets Addiction.* New York: Simon & Schuster, 2008.

Chichetti, Dante, and Vicki Carlson, *Child Maltreatment: Theory and Research on the Causes and Consequences of Child Abuse and Neglect.* New York: Cambridge University Press, 1997.

Church, M. A., and Brooks, C. I., *Subtle Suicide: Our Silent Epidemic over Ambivalence about Living.* Westport, CT: Praeger, 2009.

Clark, Neils, *Game Addiction: The Experience and the Effects.* Jefferson, NC: McFarland, 2009.

Connell, Elizabeth B., *The Contraception Sourcebook.* New York: McGraw-Hill, 2002.

Conrad, Peter, and Joseph W. Schneider, *Deviance and Medicalization: From Badness to Sickness.* Philadelphia: Temple University Press, 1992.

Courtwright, David, *Forces of Habit: Drugs and the Making of the Modern World.* Cambridge, MA: Harvard University Press, 2001.

Crosson-Tower, Cynthia, *Understanding Child Abuse and Neglect.* Boston: Allyn & Bacon, 2007.

Crouse, Janice Shaw, *Children at Risk: The Precarious State of Children's Well-Being in the United States.* New Brunswick, NJ: Transaction, 2010.

Davis, Deborah, *You Look Too Young to Be a Mom: Teen Mothers on Love, Learning, and Success.* New York: Perigee, 2004.

DeGrandpre, Richard, *The Cult of Pharmacology: How America Became the World's Most Troubled Drug Culture.* Durham, NC: Duke University Press, 2006.

Dickerson, Mark, and John O'Conner, *Gambling as an Addictive Behaviour: Impaired Control, Harm Minimisation, Treatment and Prevention.* New York: Cambridge University Press, 2006.

Dodge, Kenneth A., and Doriane Lambelet Coleman, *Preventing Child Maltreatment: Community Approaches.* New York: Guilford Press, 2009.

Ehrenreich, Nancy, ed., *The Reproductive Rights Reader: Law, Medicine, and the Construction of Motherhood.* New York: Routledge, 2008.

Finklehor, David, *Childhood Victimization: Violence, Crime, and Abuse in the Lives of Young People.* New York: Oxford University Press, 2008.

Flowers, R. Barri, *Domestic Crimes, Family Violence and Child Abuse: A Study of Contemporary American Society.* Jefferson, NC: McFarland, 2000.

Foley, Kathleen, and Herbert Hendin, eds., *The Case Against Assisted Suicide: For the Right to End-of-Life Care.* Baltimore: Johns Hopkins University Press, 2002.

Fourcroy, Jean L., ed., *Pharmacology, Doping, and Sports: A Scientific Guide for Athletes, Coaches, Physicians, Scientists, and Administrators.* New York: Routledge, 2009.

Frank, Richard G., and Sherry A. Glied, *Better but Not Well: Mental Health Policy in the United States since 1950.* Baltimore: Johns Hopkins University Press, 2006.

Furstenberg, Frank F., *Destinies of the Disadvantaged: The Politics of Teenage Childbearing.* New York: Russell Sage Foundation, 2007.

Gebbie, Alisa E., and Katharine O'Connell White, *Fast Facts: Contraception.* Albuquerque: Health Press, 2009.

Gelles, Richard J., *Intimate Violence in Families.* Thousand Oaks, CA: Sage, 1997.

Ginsberg, Faye, D., *Contested Lives: The Abortion Debate in an American Community,* rev. ed. Berkeley: University of California Press, 1998.

Glasier, Anna, and Alisa Gebbie, eds., *Handbook of Family Planning and Reproductive Healthcare.* New York: Churchill Livingstone/Elsevier, 2008.

Gorsuch, Neil M., *The Future of Assisted Suicide and Euthanasia.* Princeton, NJ: Princeton University Press, 2006.

Grob, G. N., *The Mad among Us: A History of the Care of America's Mentally Ill.* New York: Free Press, 1994.

Herring, Mark Youngblood, *The Pro-Life/Choice Debate.* Westport, CT: Greenwood Press, 2003.

Hesse-Biber, Sharlene, *Am I Thin Enough Yet? The Cult of Thinness and the Commercialization of Identity.* New York: Oxford University Press, 1996.

Heyman, Gene M., *Addiction: A Disorder of Choice.* Cambridge, MA: Harvard University Press, 2009.

Hoberman, John, *Testosterone Dreams: Rejuvenation, Aphrodisia, Doping.* Berkeley: University of California Press, 2005.

Hoffman, Allan M., and Randal W. Summers, *Elder Abuse: A Public Health Perspective.* Washington, DC: American Public Health Association, 2006.

Husak, Douglas, *Legalize This! The Case for Decriminalizing Drugs.* London: Verso, 2002.

Inciardi, James, and Karen McElrath, *The American Drug Scene,* 5th ed. New York: Oxford University Press, 2007.

Kelly, Timothy A., *Healing the Broken Mind: Transforming America's Failed Mental Health System.* New York: New York University Press, 2010.

Kemp, Donna R., *Mental Health in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Kurst-Swanger, Karel, and Jacqueline L. Petcosky, *Violence in the Home: Multidisciplinary Perspectives.* New York: Oxford University Press, 2003.

Leach, M. M., *Cultural Diversity and Suicide: Ethnic, Religious, Gender and Sexual Orientation Perspectives.* Binghamton, NY: Haworth Press, 2006.

Lord, Alexandra M., *Condom Nation: The U.S. Government's Sex Education Campaign from World War I to the Internet.* Baltimore: Johns Hopkins University Press, 2010.

Lowinson, Joyce H., et al., eds., *Substance Abuse: A Comprehensive Textbook.* Philadelphia: Lippincott Williams & Wilkins, 2005.

Luker, Kristin, *Abortion and the Politics of Motherhood.* Berkeley: University of California Press, 1984.

Luker, Kristin, *Dubious Conceptions: The Politics of Teenage Pregnancy.* Cambridge, MA: Harvard University Press, 1996.

Maris, R. W., A. C. Berman, and M. M. Silverman, *Comprehensive Textbook of Suicidology.* New York: Guilford Press, 2000.

Markens, Susan, *Surrogate Motherhood and the Politics of Reproduction.* Berkeley: University of California Press, 2007.

Maxwell, Carol J. C., *Pro-Life Activists in America: Meaning, Motivation, and Direct Action.* Cambridge, England: Cambridge University Press, 2002.

May, Elaine Tyler, *America and the Pill: A History of Promise, Peril, and Liberation.* New York: Basic Books, 2010.

McBride, Dorothy E., *Abortion in the United States: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2008.

McBurnett, Keith, and Linda Pfifner, eds., *Attention Deficit Hyperactivity Disorder: Concepts, Controversies, New Directions.* New York: Informa Healthcare, 2008.

McTavish, Jan, *Pain and Profits: The History of the Headache and Its Remedies.* New Brunswick, NJ: Rutgers University Press, 2004.

Miller, Dusty, *Women Who Hurt Themselves.* New York: Basic Books/HarperCollins, 1994.

Miller, William R., and Kathleen M. Carroll, *Rethinking Substance Abuse: What the Science Shows, and What We Should Do about It.* New York: Guilford Press, 2006.

Mitchell, John B., *Understanding Assisted Suicide: Nine Issues to Consider.* Ann Arbor: University of Michigan Press, 2007.

Monteleone, James A., *A Parent's and Teacher's Handbook on Identifying and Preventing Child Abuse.* St. Louis: G. W. Medical Publishing, 1998.

Musto, David, *The American Disease: Origins of Narcotics Control,* 3d edition. New York: Oxford University Press, 1999.

National Association of Anorexia Nervosa and Associated Disorders, http://www.anad.org

National Association to Protect Children, http://www.protect.org

National Campaign to Prevent Teen and Unplanned Pregnancy, http://www.thenationalcampaign.org

National Children's Advocacy Center. http://www.nationalcac.org

Nerenberg, Lisa, *Elder Abuse Prevention: Emerging Trends and Promising Strategies.* New York: Springer, 2008.

Nixon, Mary K., and Nancy L. Heath, eds., *Self-Injury in Youth: The Essential Guide to Assessment and Intervention.* New York: Routledge, 2009.

Nutt, David, et al., eds., *Drugs and the Future: Brain Science, Addiction, and Society.* Burlington, MA: Academic Press, 2006.

Page, Cristina, *How the Pro-Choice Movement Saved America: Freedom, Politics, and the War on Sex.* New York: Basic Books, 2006.

Patterson, Anna, *Fit to Die: Men and Eating Disorders.* Thousand Oaks, CA: Sage, 2004.

Planned Parenthood Federation of America, http://www.plannedparenthood.org

Prevent Child Abuse America, http://www.preventchildabuse.org

Riddle, John M., *Eve's Herbs: A History of Contraception and Abortion in the West.* Cambridge, MA: Harvard University Press, 1997.

Rose, Melody, *Safe, Legal, and Available? Abortion Politics in the United States.* Washington, DC: CQ Press, 2007.

Rosen, Daniel M., *Dope: The History of Performance Enhancement in Sports from the Nineteenth Century to Today.* Westport, CT: Praeger, 2008.

Rumney, Avis, *Dying to Please: Anorexia, Treatment and Recovery.* Jefferson, NC: McFarland, 2009.

S.A.F.E. Alternatives, "Self Abuse Finally Ends." 2010. http://www.selfinjury.com

Shalev, Carmel, *Birth Power: The Case for Surrogacy.* New Haven, CT: Yale University Press, 1989.

Shrage, Laurie, *Abortion and Social Responsibility: Depolarizing the Debate.* New York: Oxford University Press, 2003.

Sokoloff, Natalie J., with Christina Pratt, *Domestic Violence at the Margins: Readings on Race, Class, Gender, and Culture.* New Brunswick, NJ: Rutgers University Press, 2005.

Solinger, Ricki, *Pregnancy and Power: A Short History of Reproductive Politics in America.* New York: New York University Press, 2005.

Strong, Marilee, *A Bright Red Scream: Self-Mutilation and the Language of Pain.* New York: Penguin, 1998.

Thompson, Marie L., *Mental Illness.* Westport, CT: Greenwood Press, 2006.

Timimi, Sami, *Naughty Boys: Anti-Social Behavior, ADHD and the Role of Culture.* New York: Palgrave Macmillan, 2005.

Weschler, Toni, *Taking Charge of Your Fertility.* New York: HarperCollins, 2006.

Williams-Wheeler, Dorrie, *The Unplanned Pregnancy Book for Teens and College Students.* Virginia Beach, VA: Sparkledoll Productions, 2004.

Family and Media

BabyBag.com, "Facts about Media Violence and Effects on the American Family." http://www.babybag.com/articles/amaviol.htm

Barker, Martin, and Julian Petley, eds., *Ill Effects: The Media/Violence Debate.* New York: Routledge, 2001.

Bissell, Tom., *Extra Lives: Why Video Games Matter.* New York: Pantheon, 2010.

Buckingham, David, *After the Death of Childhood: Growing up in the Age of Electronic Media.* Malden, MA: Polity, 2005.

Children and Television Violence, http://www.abelard.org/tv/tv.htm

Egenfeldt-Nielsen, Simon, et al., *Understanding Video Games: The Essential Introduction.* New York: Routledge, 2008.

Entertainment Software Association, http://www.theesa.com

Freedman, Jonathan L., *Media Violence and Its Effect on Aggression: Assessing the Scientific Evidence.* Toronto: University of Toronto Press, 2002.

Gee, James Paul, *What Video Games Have to Tell Us about Learning and Literacy,* 2d ed. New York: Palgrave Macmillan, 2007.

Glassner, Barry, *The Culture of Fear: Why Americans Are Afraid of the Wrong Things.* New York: Basic Books, 1999.

Goldstein, Jeffrey H., *Why We Watch: The Attractions of Violent Entertainment.* New York: Oxford University Press, 1998.

Hilliard, Robert L., and Michael C. Keith, *Dirty Discourse: Sex and Indecency in Broadcasting,* 2d ed. Malden, MA: Blackwell, 2007.

Jamieson, Kathleen Hall, and Joseph N. Cappella, *Echo Chamber: Rush Limbaugh and the Conservative Media Establishment.* New York: Oxford University Press, 2008.

Jenkins, Henry, *Fans, Bloggers, and Gamers: Exploring Participatory Culture.* New York: New York University Press, 2006.

Jones, Gerard, *Killing Monsters: Why Children Need Fantasy, Super Heroes, and Make-Believe Violence.* New York: Basic Books, 2002.

Kammeyer, Kenneth C., *A Hypersexual Society: Sexual Discourse, Erotica, and Pornography in America Today.* New York: Palgrave Macmillan, 2008.

Kirsh, Steven J., *Children, Adolescents, and Media Violence: A Critical Look at the Research.* Thousand Oaks, CA: Sage, 2006.

Lipshultz, Jeremy H., *Broadcast Indecency: FCC Regulation and the First Amendment.* Newton, MA: Focus Press, 1997.

McNair, Brian, *Mediated Sex: Pornography and Postmodern Culture.* New York: St. Martin's Press, 1996.

Media Awareness Network, http://www.media-awareness.ca/english/issues/violence/index.cfm

National Institute on Media and the Family, http://www.mediafamily.org/facts/facts_vlent.shtml

O'Connor, Rory, *Shock Jocks: Hate Speech and Talk Radio: America's Ten Worst Hate Talkers and the Progressive Alternatives.* San Francisco: AlterNet Books, 2008.

Paul, Pamela, *Pornified: How Pornography Is Transforming Our Lives, Our Relationships, and Our Families.* New York: Henry Holt, 2005.

PBS Frontline, *American Porn* (documentary). 2002.

Sandler, Kevin, *The Naked Truth: Why Hollywood Does Not Make NC-17 Films.* New Brunswick, NJ: Rutgers University Press, 2006.

Schechter, Harold, *Savage Pastime: A Cultural History of Violent Entertainment.* New York: St. Martin's Press, 2005.

Springhall, John, *Youth, Popular Culture and Moral Panics: Penny Gaffs to Gangsta-Rap, 1820–1996.* New York: St. Martin's Press, 1998.

Sternheimer, Karen, *It's Not the Media: The Truth about Pop Culture's Influence on Children.* Boulder, CO: Westview Press, 2003.

Tobin, Joseph, *Good Guys Don't Wear Hats: Children's Talk about the Media.* New York: Teachers College Press, 2000.

Trend, David, *The Myth of Media Violence: A Critical Introduction.* Hoboken, NJ: Wiley-Blackwell, 2007.

Vorderer, Peter, and Jennings Bryant, eds., *Playing Video Games: Motives, Responses, and Consequences,* Mahwah, NJ: Lawrence Erlbaum, 2006.

Religion and Society

Alters, B. J., and S. M. Alters, *Defending Evolution: A Guide to the Evolution/Creation Controversy.* Sudbury, MA: Jones and Bartlett, 2001.

Americans United for Separation of Church and State, http://www.au.org

Bowler, Peter J., *Monkey Trials and Gorilla Sermons: Evolution and Christianity from Darwin to Intelligent Design.* Cambridge, MA: Harvard University Press, 2007.

Center for Law and Religious Freedom, http://www.clsnet.org

Cowan, Douglas E., *Cults and New Religions: A Brief History.* New York: Oxford University Press, 2008.

Dawson, Lorne L., *Comprehending Cults: The Sociology of New Religious Movements.* New York: Oxford University Press, 2006.

Dierenfield, Bruce J., *The Battle over School Prayer: How* Engle v. Vitale *Changed America.* Lawrence: University Press of Kansas, 2007.

Dunn, Charles W., ed., *The Future of Religion in American Politics.* Lexington: University Press of Kentucky, 2009.

Frawley-O'Dea, Mary Gail, *Perversion of Power: Sexual Abuse in the Catholic Church.* Nashville: Vanderbilt University Press, 2007.

Gallagher, Eugene V., *The New Religious Movements Experience in America.* Westport, CT: Greenwood Press, 2004.

Gallagher, Eugene V., and W. Michael Ashcraft, eds., *Introduction to New and Alternative Religions in America.* Westport, CT: Greenwood Press, 2006.

Giberson, Karl, *Saving Darwin: How to Be a Christian and Believe in Evolution.* New York: HarperOne, 2008.

Larson, Edward J., *Trial and Error: The American Controversy over Creation and Evolution,* 3d ed. New York: Oxford University Press, 2003.

Lewis, James R., *Legitimating New Religions.* New Brunswick, NJ: Rutgers University Press, 2003.

McMackin, Robert A., et al., eds., *Understanding the Impact of Clergy Sexual Abuse: Betrayal and Recovery.* New York: Routledge, 2009.

Miller, Kenneth R., *Only a Theory: Evolution and the Battle for America's Soul.* New York: Viking Press, 2008.

Numbers, Ronald J., *The Creationists: From Scientific Creationism to Intelligent Design,* rev. ed. Cambridge, MA: Harvard University Press, 2006.

Nussbaum, Martha Craven, *Liberty of Conscience: In Defense of America's Tradition of Religious Equality.* New York: Basic Books, 2008.

Partridge, Christopher, *New Religions: A Guide: New Religious Movements, Sects and Alternative Spiritualities.* New York: Oxford University Press, 2004.

People for the American Way, http://www.pfaw.org/pfaw

Petto, Andrew J., and Laurie R. Godfrey, *Scientists Confront Intelligent Design and Creationism.* New York: W. W. Norton, 2007.

Plante, Thomas G., ed., *Sin against the Innocent: Sexual Abuse by Priests and the Role of the Catholic Church.* Westport, CT: Praeger, 2004.

Rutherford Institute, http://www.rutherford.org

Saliba, John, *Understanding New Religious Movements,* 2d ed. Walnut Creek, CA: AltaMira Press, 2003.

Scott, Eugenie C., *Evolution vs. Creationism: An Introduction,* 2d ed. Berkeley: University of California Press, 2009.

Solomon, Stephen, *Ellery's Protest: How One Young Man Defied Tradition and Sparked the Battle over School Prayer.* Ann Arbor: University of Michigan Press, 2007.

Stark, Rodney, *What Americans Really Believe: New Findings from the Baylor Surveys of Religion.* Waco, TX: Baylor University Press, 2008.

Wilson, Bryan, and Jamie Cresswell, eds., *New Religious Movements: Challenge and Response.* New York: Routledge, 1999.

Schools

Abernathy, Scott Franklin, *No Child Left Behind and the Public Schools.* Ann Arbor: University of Michigan Press, 2007.

Angus, David L., and Jeffrey E. Mirel, *The Failed Promise of the American High School, 1895–1995.* New York: Teachers College Press, 1999.

Baker, Joan M., *Achievement Testing in U.S. Elementary and Secondary Schools.* New York: Peter Lang, 2005.

Beatty, Barbara, *Preschool Education in America: The Culture of Young Children from the Colonial Era to the Present.* New Haven, CT: Yale University Press, 1995.

Betts, Julian R., and Tom Loveless, eds., *Getting Choice Right: Ensuring Equity and Efficiency in Education Policy.* Washington, DC: Brookings Institution Press, 2005.

Boger, John Charles, and Gary Orfield, eds., *School Resegregation: Must the South Turn Back?* Chapel Hill: University of North Carolina Press, 2004.

Bracey, Gerald W., *The War against America's Schools: Privatizing Schools, Commercializing Education.* Boston: Allyn & Bacon, 2001.

Buckley, Jack, and Mark Schneider, *Charter Schools: Hope or Hype?* Princeton, NJ: Princeton University Press, 2007.

Bulkley, K., and P. Wohlstetter, eds., *Taking Account of Charter Schools: What's Happened and What's Next.* New York: Teachers College Press, 2004.

Carnoy, Martin, et al., *The Charter School Dust-Up: Examining the Evidence on Enrollment and Achievement.* Washington, DC: Economic Policy Institute; New York: Teachers College Press, 2005.

Clotfelter, Charles T., *After Brown: The Rise and Retreat of School Desegregation.* Princeton, NJ: Princeton University Press, 2006.

Committee on Nutrition Standards for Foods in Schools, *Nutrition Standards for Foods in Schools: Leading the Way toward Healthier Youth.* New York: National Academies Press, 2007.

Cookson, Peter W., and Kristina Berger, *Expect Miracles: Charter Schools and the Politics of Hope and Despair.* Boulder, CO: Westview Press, 2003.

Cooper, Ann, and Lisa M. Holmes, *Bitter Harvest.* New York: Routledge, 2000.

Cooper, Ann, and Lisa M. Holmes, *Lunch Lessons: Changing the Way We Feed Our Children.* New York: HarperCollins, 2006.

Corwin, Ronald G., and E. Joseph Schneider, *The School Choice Hoax: Fixing America's Schools.* Lanham, MD: Rowman & Littlefield, 2007.

Cryer, Debby, and Richard M. Clifford, eds., *Early Education and Care in the USA.* Baltimore: Brookes Publishing, 2002.

Cummins, Jim, and Merill Swain, *Bilingualism in Education: Aspects of Theory, Research, and Practice.* New York: Longman, 1986.

Dunn, Joshua M., and Martin R. West, eds., *From Schoolhouse to Courthouse: The Judiciary's Role in American Education.* Washington, DC: Brookings Institution Press, 2009.

Farquhar, Sandy, and Peter Fitzsimmons, eds., *Philosophy of Early Childhood Education: Transforming Narratives.* New York: Wiley-Blackwell, 2008.

Feinberg, Walter, and Christopher Lubienski, *School Choice Policies and Outcomes: Empirical and Philosophical Perspectives.* Albany: State University of New York Press, 2008.

Frankenberg, Erica, and Gary Orfield, eds., *Lessons in Integration: Realizing the Promise of Racial Diversity in America's Schools.* Charlottesville: University of Virginia Press, 2007.

Franklin, C., et al., eds., *The School Practitioner's Concise Companion to Preventing Dropout and Attendance Problems.* New York: Oxford University Press, 2008.

Freeman, C. E., *Trends in the Educational Equity of Girls and Women: 2004.* Washington, DC: National Center for Education Statistics, 2004.

Fuller, Bruce, ed., *Inside Charter Schools: The Paradox of Radical Decentralization.* Cambridge, MA: Harvard University Press, 2000.

Fuller, Bruce, et al., *Standardized Childhood: The Political and Cultural Struggle over Early Education.* Stanford, CA: Stanford University Press, 2007.

Gandara, Patricia, and Megan Hopkins, *Forbidden Language: English Learners and Restrictive Language Policies.* New York: Teachers College Press, 2010.

Garcia, Eugene E., *Teaching and Learning in Two Languages: Bilingualism and Schooling in the United States.* New York: Teachers College Press, 2005.

Goffin, Stacie G., and Valora Washington, *Ready or Not: Leadership Choices in Early Care and Education.* New York: Teachers College Press, 2007.

Gunderson, Lee, *English-Only Instruction and Immigrant Students in Secondary Schools: A Critical Examination.* Mahwah, NJ: Lawrence Erlbaum, 2007.

Gurian, Micael, *Boys and Girls Learn Differently! A Guide for Teachers and Parents.* Hoboken, NJ: Jossey-Bass, 2001.

Hayes, William, *No Child Left Behind: Past, Present, and Future.* Lanham, MD: Rowman & Littlefield, 2008.

Hursh, David W., *High-Stakes Testing and the Decline of Teaching and Learning.* Lanham, MD: Rowman & Littlefield, 2008.

Hyman, Irwin A., *Reading, Writing, and the Hickory Stick. The Appalling Story of Physical and Psychological Abuse in American Schools.* Lexington, MA: Lexington Books, 1990.

Kluger, Richard, *Simple Justice: The History of* Brown v. Board of Education *and Black America's Struggle for Equality,* rev. ed. New York: Knopf, 2004.

Kosar, Kevin R., *Failing Grades: The Federal Politics of Education Standards.* Boulder, CO: Lynne Rienner, 2005.

Levine, Susan, *School Lunch Politics: The Surprising History of America's Favorite Welfare Program.* Princeton, NJ: Princeton University Press, 2010.

Lockwood, A. T., *The Charter School Decade.* Lanham, MD: Scarecrow Press, 2004.

Manna, Paul, *School's In: Federalism and the National Education Agenda.* Washington, DC: Georgetown University Press, 2006.

Mathison, Sandra, and E. Wayne Ross, *Defending Public Schools: The Meaning and Limits of Standards-Based Reform and High-Stakes Testing.* Westport, CT: Praeger, 2004.

McCluskey, Neal P., *Feds in the Classroom: How Big Government Corrupts, Cripples, and Compromises American Education.* Lanham, MD: Rowman & Littlefield, 2007.

McGregor, Gail, and R. Timm Vogelsberg, *Inclusive Schooling Practices: Pedagogical and Research Foundations: A Synthesis of the Literature that Informs Best Practices.* Baltimore: Paul H. Brookes, 1999.

Merseth, Katherine K., with Kristy Cooper, *Inside Urban Charter Schools: Promising Practices and Strategies in Five High-Performing Schools.* Cambridge, MA: Harvard Education Press, 2009.

Miron, G., and C. Nelson, *What's Public about Charter Schools? Lessons Learned about Choice and Accountability.* Thousand Oaks, CA: Corwin Press, 2002.

Mishel, L., and J. Roy, *Rethinking High School Graduation Rates and Trends.* Washington, DC: Economic Policy Institute, 2006.

Nichols, Sharon Lynn, and David C. Berliner, *Collateral Damage: How High-Stakes Testing Corrupts American Schools.* Cambridge MA: Harvard Education Press, 2007.

Orfield, Gary, ed., *Dropouts in America: Confronting the Graduation Rate Crisis.* Cambridge, MA: Harvard Education Press, 2004.

Orfield, Gary, and Chungmei Lee, *Racial Transformation and the Changing Nature of Segregation.* Cambridge, MA: Civil Rights Project at Harvard University, 2006.

Peterson, J. Michael, and Mishael M. Hittie, *Inclusive Teaching: The Journey towards Effective Schooling for All Learners,* 2d ed. Upper Saddle River, NJ: Prentice Hall, 2009.

Phelps, Richard P., ed., *Defending Standardized Testing.* Mahwah, NJ: Lawrence Erlbaum, 2005.

Poppendieck, Janet, *Free for All: Fixing School Food in America.* Berkeley: University of California Press, 2010.

Powers, Jeanne M., *Charter Schools: From Reform Imagery to Reform Reality.* New York: Palgrave Macmillan, 2009.

Ravitch, Diane, *Death and Life of Great American School Reform: How Testing and Choice Are Undermining Education.* New York: Basic Books, 2010.

Rebell, Michael A., and Jessica R. Wolff, eds., *NCLB at the Crossroads: Reexamining the Federal Effort to Close the Achievement Gap.* New York: Teachers College Press, 2009.

Reese, William J., *America's Public Schools: From the Common School to "No Child Left Behind."* Baltimore: Johns Hopkins University Press, 2005.

Sadovnik, Alan R., et al., eds., *No Child Left Behind and the Reduction of the Achievement Gap: Sociological Perspectives on Federal Educational Policy.* New York: Routledge, 2008.

Salomone, Rosemary C., *True Americans: Language, Identity, and the Education of Immigrant Children.* Cambridge, MA: Harvard University Press, 2010.

Sapon-Shevin, Mara, *Widening the Circle: The Power of Inclusive Classrooms.* Boston: Beacon Press, 2007.

Smrekar, Claire E., and Ellen B. Goldring, eds., *From the Courtroom to the Classroom: The Shifting Landscape of School Desegregation.* Cambridge, MA: Harvard Education Press, 2009.

Swanson, C., *The Real Truth about Low Graduation Rates: An Evidence-Based Commentary.* Washington, DC: Urban Institute, 2004.

Swanson, C., *Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001.* Washington, DC: Urban Institute, 2004.

Thorne, Barrie, *Gender Play: Girls and Boys in School.* New Brunswick, NJ: Rutgers University Press, 1993.

Urban, Wayne, and L. Wagoner Jennings Jr., *American Education: A History.* New York: McGraw-Hill, 2004.

Vinovskis, Maris A., *From a Nation at Risk to No Child Left Behind: National Education Goals and the Creation of Federal Education Policy.* New York: Teachers College Press, 2009.

Walberg, Herbert A., *School Choice: The Findings.* Washington, DC: Cato Institute, 2007.

Wells, Amy Stuart, et al., *Both Sides Now: The Story of School Desegregation's Graduates.* Berkeley: University of California Press, 2009.

About the Editor and Contributors

Editor

Michael Shally-Jensen is former editor-in-chief of the *Encyclopedia Americana,* executive editor of the *Encyclopedia of American Studies,* and editor of numerous other books and reference publications. He received his PhD in cultural anthropology from Princeton University, having specialized in aspects of American culture and society. He lives in Amherst, Massachusetts.

Contributors

Amber Ault is a sociologist with training in anthropology and social work; a background in teaching, advising, and academic coaching; and interests in health, wellness, exercise, and creating healthy, inclusive, diverse institutional environments.

Rob Beamish is associate professor of sociology at Queen's University, Kingston, Ontario. His research interests include the use of performance-enhancing substances in sport. He is coauthor, with Ian Ritchie, of *Highest, Fastest, Strongest: A Critique of High-Performance Sport* (2006). He has also published a two-volume textbook of sociology.

Rachel Birmingham is currently a doctoral student in human development and family studies at Auburn University. She completed her master's degree in family, youth, and community services at the University of Florida, with a specialization in family violence studies. She has been certified by the Florida Coalition against Domestic Violence.

Paul Boudreau is a Catholic priest of the Diocese of Norwich, Connecticut, and a freelance writer. He coauthored, with Alice Camille, *The Forgiveness Book* (2008). He serves the Blessed Kateri Tekakwitha Parish in Banning, California.

Kimberly P. Brackett is distinguished teaching associate professor of sociology and head of the Sociology Department at Auburn University, Montgomery, Alabama. She received MA and PhD degrees from the University of Florida. Her specialties include family, gender, and social psychology, and it is in these areas that she teaches.

Glenn Branch is deputy director of the National Center for Science Education, a nonprofit organization affiliated with the American Association for the Advancement of Science, which defends the teaching of evolution in the public schools. His articles on creationism and evolution have appeared in such publications as *Academe, The American Biology Teacher, BioScience, Free Inquiry, Geotimes,* and *USA Today.* With Eugenie C. Scott, he is the editor of *Not in Our Classrooms: Why Intelligent Design Is Wrong for Our Schools* (2006).

Charles I. Brooks is professor and chair of the Department of Psychology, King's College, Wilkes-Barre, Pennsylvania. He received a master's degree in psychology from Wake Forest University, and a doctorate in experimental psychology from Syracuse University. He has taught at King's College since 1975 and was designated a distinguished service professor in 1993. He has authored or coauthored more than 40 scholarly publications in psychology.

Christopher P. Brown is an assistant professor in the Department of Curriculum and Instruction at the University of Texas at Austin. His research interests include the intersection of education policy, curriculum, and instruction; standards-based accountability reform; and early childhood/early elementary education.

Santarica Buford is pursuing an advanced degree in social work at Auburn University, having completed her undergraduate studies in sociology and marriage and family. Her future goals involve counseling and work with pregnant teens and domestic violence victims.

Nancy D. Campbell is an associate professor of science and technology studies at Rensselaer Polytechnic Institute in Troy, New York. She is the author of *Using Women: Gender, Drug Policy, and Social Reproduction* (2000), *Discovering Addiction: The Science and Politics of Substance Abuse Research* (2007), and, with J. P. Olsen and Luke Walden, *The Narcotic Farm: The Rise and Fall of America's First Prison for Drug Addicts* (2008). She has also written on the history of harm reduction drug policy, sweat-patch drug testing,and feminist science studies.

Jane Caputi is professor of women's studies at Florida Atlantic University, Boca Raton. Among her publications is *Goddesses and Monsters: Women, Myth, and Power in Popular Culture* (2004).

Cynthia Childress is a PhD candidate in the Department of English at the University of Louisiana at Lafayette, specializing in women's literature and feminist theory.

Michael A. Church is associate professor of psychology at King's College in Wilkes-Barre, Pennsylvania. He received his master's and doctoral degrees in psychology from the University of Miami. He has taught at King's College since 1976, and has been a licensed clinical psychologist with a private practice since 1980. He is a member of the Council of National Register of Health Service Providers in Psychology.

Susan Cody-Rydzewski is associate professor of social sciences at Georgia Perimeter College, Dunwoody. She received her doctorate from the University of Florida and currently teaches courses in marriage and family, gender and society, social problems, and sociology of religion. She has published articles on work and family conflict and women's experiences working within male-dominated occupations, such as ministry.

Hayley Cofer completed a bachelor of arts degree in sociology with a concentration in marriage and family at Auburn University at Montgomery, Alabama.

Ann Cooper is a noted author, chef, educator, and enduring advocate for better food for all children. A graduate of the Culinary Institute of America, Hyde Park, New York, she has been a chef for more than 30 years, including positions with Holland America Cruises, Radisson Hotels, and Telluride Ski Resort as well as serving as executive chef at the renowned Putney Inn in Vermont. She has published four books, including *Lunch Lessons: Changing the Way We Feed Our Children* (2006) and *In Mother's Kitchen: Celebrated Women Chefs Share Beloved Family Recipes* (2005), both coauthored with Lisa Holmes.

Ronald G. Corwin is a professor emeritus of sociology at Ohio State University, has also taught at Teachers College, Columbia University, and has served as director of basic research in the U.S. Department of Education. He has been a vice president of the American Educational Research Association and has held elected positions in the American Sociological Research Association. Author or coauthor of a dozen books and two dozen contributed chapters, he also edited a series of books on educational research.

Garry Crawford is a senior lecturer in sociology at the University of Salford (United Kingdom). His research interests focus primarily on media audiences

and fan cultures. In particular, he has published on sport fan culture, including the book *Consuming Sport: Sports, Fans and Culture* (2004). He also coauthored, with T. Blackshaw, *The Sage Dictionary of Leisure Studies* (2009) and has written on digital gaming patterns.

Lane Destro is a Sulzberger/Levitan fellow in sociology at Duke University's Center for Child and Family Policy. Her research interests include demography, methodology, and racial disparities in wealth acquisition.

Sarah Fish is an adjunct instructor in the Department of English and Philosophy at Auburn University, Montgomery, Alabama. She holds a master's degree from Auburn and is currently a PhD candidate there.

Erica Frankenberg is director of research and policy for the Initiative on School Integration, part of the University California, Los Angeles's Civil Rights Project. She received her doctorate in educational policy from the Harvard University Graduate School of Education. She is coeditor, with Gary Orfield, of *Lessons in Integration: Realizing the Promise of Racial Diversity in America's Schools* (2007).

Aaron D. Franks is proprietor and chief executive officer of A1 Health and Fitness. His interests include furthering his academic pursuits as well as improving the lives of others.

Nicole D. Garrett is a graduate research assistant in the marriage and family therapy program at the University of Kentucky. Her research interests include couple dynamics, methods of improving relationship quality, and adolescent behavior and emotional health.

Lee Gunderson is a professor and former head of the Department of Language and Literacy Education at the University of British Columbia, where he teaches undergraduate and graduate courses in second language reading, language acquisition, literacy acquisition, and teacher education. He has served as a preschool teacher, a primary-level elementary teacher, a reading specialist, a principal and vice principal in a bilingual school, and a teacher of the learning disabled. He has conducted long-term research that explores the achievement of approximately 25,000 immigrant students.

Lisa M. Holmes graduated from Wellesley College with a degree in English and began her career as a writer with a six-year stint as a travel journalist for Frommer's. She later shifted her focus, adding chef and chocolatier to her resume after receiving her professional culinary training at the Culinary Institute of America in Hyde Park, New York. Her publications, coauthored with Ann Cooper, include *Lunch Lessons: Changing the Way We Feed Our Children* (2006) and *In Mother's Kitchen: Celebrated Women Chefs Share Beloved Family Recipes* (2005).

John M. Hood is president and chairman of the John Locke Foundation, a public policy think tank in North Carolina. A graduate of the University of North Carolina–Chapel Hill's School of Journalism, Hood is a syndicated columnist whose articles have appeared in such publications as *Reader's Digest,* the *Wall Street Journal,* and the *National Review.* He has also authored three books.

Jonelle Husain is a doctoral student in sociology and research associate at the Social Science Research Center at Mississippi State University. Her research focuses on social constructions of trauma in the context of postabortion healing groups.

Gwenyth Jackaway is associate professor of communication and media studies at Fordham University. Her research and teaching interests include freedom of speech, children and media, and media effects. She has authored a number of articles and book chapters as well as the book *Media at War: Radio's Challenge to the Newspaper, 1924–1937* (Praeger, 1995).

Jeffrey Jones is a freelance writer living in Montgomery, Alabama. His interests include representations of homosexuality in contemporary art, pagan symbolism in Renaissance art, queer theory, and gay rights advocacy.

Tonya Lowery Jones holds a master's degree in sociology and a bachelor's degree in criminology, both from Auburn University in Auburn, Alabama. She is currently an adjunct sociology instructor at Auburn University (Auburn and Montgomery campuses), Southern Union State Community College, and Chattahoochee Valley Community College.

Donna R. Kemp is professor of public administration and graduate coordinator of the Department of Political Science at California State University, Chico, California. Her published works include *Mental Health in America: A Reference Guide* (ABC-CLIO, 2007) and *Mental Health in the Workplace: An Employer's and Manager's Guide* (Praeger, 1994).

Karen L. Kinnear is a paralegal and a professional researcher, editor, and writer with more than 25 years of experience in sociological, economic, statistical, and financial analysis. Her published works include *Gangs* (2d ed., 2008) and *Childhood Sexual Abuse* (2d ed., 2007), both published by ABC-CLIO.

Kevin R. Kosar is the author of *Failing Grades: The Federal Politics of Education Standards* (2005). His writings have appeared in many professional journals, and he has lectured at the New York University's Robert F. Wagner Graduate School of Public Service and at Metropolitan College of New York's School for Public Affairs and Administration. He has worked for a New York City not-for-profit corporation that helps children in some of New York City's lowest-performing schools and has served as a peer reviewer for the U.S. Department of Education's Teaching American

History Grant Program and Presidential Academies for American History and Civics programs. He earned his doctorate in politics at New York University.

Chinh Q. Le served as assistant counsel at the National Association for the Advancement of Colored People Legal Defense and Educational Fund, Inc. in New York for five years. During that time, he represented plaintiffs in school desegregation and educational equity cases, including several class action cases, and counseled defendants in voluntary school integration litigation. He has also been involved in matters related to voting rights and higher education affirmative action. Le received his JD degree from the University of Virginia School of Law, where he served as notes editor of the *Virginia Law Review.* He is presently an associate in the New York office of Jenner & Block LLP.

Margaret Leaf is a PhD candidate in sociology at Florida State University. Her research interests include self-injury, rape, and sexual behavior, all of which she has published papers about in professional journals.

Linda Mabry is professor of education at Washington State University. Her research interests include state and national assessment systems and teacher-developed assessments. Current projects include a follow-along study of No Child Left Behind (NCLB) in two states and development of a public statement on educational accountability for the American Evaluation Association. Her publications include *Real-World Evaluation: Working Under Budget, Time, Data, and Political Constraints* (2006), coauthored with Michael J. Bamberger and Jim Rugh.

Philip Martin is professor of agricultural and resource economics and chair of the Comparative Immigration and Integration Program at the University of California, Davis. He is the editor of *Migration News* and the *Quarterly Rural Migration News.* His research interests include farm labor, labor migration, and immigration issues. He has testified before Congress and state and local agencies on immigration. His recent publications include the book *Importing Poverty? Immigration and the Changing Face of Rural America* (2009).

Sandra Mathison is professor of education at the University of British Columbia. Her research interest is in educational evaluation, and her work has focused especially on the potential and limits of evaluation to support democratic ideals and promote justice. Her most recent research is on the effects of state-mandated testing on teaching and learning. She is editor of the *Encyclopedia of Evaluation* (2004), coeditor (with E. Wayne Ross) of *Defending Public Schools: The Nature and Limits of Standards Based Reform and Assessment* (2008), and coauthor (with Melissa Freeman) of *Researching Children's Experience* (2008). She is editor-in-chief of the journal *New Directions for Evaluation.*

Casey McCabe received a master's degree in women's studies from Florida Atlantic University. She received a bachelor of arts degree from the University of Connecticut.

Robert Hartmann McNamara is associate professor of political science and criminal justice at the Citadel. He is the author or editor of several books, including (as editor), *Homelessness in America* (Praeger, 2008). McNamara has served as a senior research fellow for the National Strategy Information Center, the Policy Lab, the Police Executive Research Forum in Washington, DC, and the Pacific Institute for Research and Evaluation in Baltimore.

Lori McNeil is an assistant professor of sociology in the Department of Sociology and Anthropology at Long Island University, C. W. Post Campus. She received her MA and PhD degrees from Western Michigan University.

Gary Miron is chief of staff at the Evaluation Center and professor of education at Western Michigan University. He has extensive experience evaluating education policies and school reforms. In recent years, he has evaluated charter school reforms in six states and conducted a federally sponsored study of the correlates of success in charter schools. He also conducted an evaluation of student achievement in schools operated by Edison Schools Inc. He has authored or edited eight books and has published more than 20 articles and book chapters.

Ron Mock is associate professor of political science and peace studies at George Fox University, in Newberg, Oregon. He holds an master's degree in public administration from Drake University and a JD from the University of Michigan. His research and teaching interests include conflict resolution, community mediation, state and local government, and issues in law and society.

J. Michael Peterson is professor in the College of Education at Wayne State University, where he teaches courses related to inclusive teaching and transition from school to adult life. He obtained his doctoral degree in vocational education, special needs from the University of North Texas. He has previously been a faculty member at Mississippi State University and director of the Developmental Disabilities Institute at Wayne State University. He is director of the Whole Schooling Consortium, an international network of educators, university faculty, parents, and schools. He has published some 80 articles and monographs, including (with Mishael M. Hittie) *Inclusive Teaching: Creating Effective Schools for All Learners* (2d ed., 2009).

Carrie Anne Platt is assistant professor of communication at North Dakota State University. She received her MA and PhD degrees from the Annenberg School for Communication at the University of Southern California, where she was a Walter

R. Fisher Fellow. Her research and teaching focuses on cultural politics, public rhetoric, and electronic communication.

Lasita Rudolph is pursuing an advanced degree in marriage and family therapy after having received a bachelor of arts degree in psychology from Auburn University at Montgomery, Alabama.

Jessica Ruglis is a Kellogg Health Scholar at Johns Hopkins University. She received her PhD in urban education from the Graduate Center of The City University of New York. A former teacher, she also holds a master's degree in urban public health/community health education from Hunter College, a master of art in teaching in secondary science education from Union College, and a BS degree in human biology from University at Albany.

David Sanjek is on the Faculty of Arts, Music, and Social Sciences at the University of Salford (United Kingdom). He has taught classes in popular music and media studies at New York University, Hunter College, Fordham University, and the New School for Social Research. From 1991 to 2007, he was the director of the Broadcast Music Incorporated Archives in New York City. A member of the editorial boards of the *Journal of Popular Music Studies, Popular Music and Society, American Studies,* and the *New Grove Encyclopedia of American Music,* he has published widely on popular music, film, media studies, copyright law, and popular culture.

Derrick Shapley is currently working toward his PhD in sociology at Mississippi State University. He earned a bachelor of arts degree in political science and history from Auburn University and a bachelor of science degree in sociology from Athens State University. His research interests include rural sociology, poverty, political sociology, sociology of religion, and social theories.

Amanda Singletary works with the Alabama Department of Human Resources as a foster care social worker. She is pursuing a master's degree in community counseling at Troy State University Montgomery.

Daniel L. Smith-Christopher is a professor of theological studies and director of peace studies at Loyola Marymount University. He appears regularly on television as a consultant and scholarly commentator on documentaries broadcast by A&E, Discovery, the History Channel, the National Geographic Network, and PBS (Public Broadcasting Service) and is the author of numerous works of scholarship.

Angela Sparrow is currently a Periclean Scholar in Ghana with Elon University, where she is studying human services.

Tracy Sayuki Tiemeier is an assistant professor of theological studies at Loyola Marymount University. Her research and teaching interests include comparative

theology, Hindu-Christian dialogue, contemporary theological anthropologies and identity politics, Asian and Asian American theologies, feminist theologies, and postcolonial theory.

Taralyn Watson received her bachelor of liberal arts degree from Auburn University at Montgomery, Alabama.

Marion C. Willetts is an associate professor of sociology at Illinois State University. Her areas of specialization include families—particularly cohabitation and coupling policies—and stratification—most notably poverty. She has published numerous articles in journals such as *Journal of Marriage and Family, Journal of Family Issues,* and *Journal of Divorce and Remarriage.* Her most recent research is a policy analysis of licensed domestic partnership ordinances.

Donald Woolley completed his doctoral work in sociology at North Carolina State University. He has since worked at Duke University as a researcher in the Fast Track study within the Center for Child and Family Policy and in the Healthy Childhood Brain Development and Developmental Traumatology Research Program within the Department of Psychiatry and Behavioral Sciences, Division of Child and Adolescent Psychiatry. Woolley also teaches as an adjunct assistant professor in the Department of Sociology and Anthropology, Elon University.

Talmadge Wright is an associate professor of sociology at Loyola University of Chicago. His recent research has focused on digital gaming, though he has also published work on homelessness, social inequality, usage of social space, mass media, popular culture, and other subjects.

Annice Yarber is an assistant professor of sociology at Auburn University at Montgomery, Alabama. She teaches courses on the sociology of health and illness, human sexuality, divorce and remarriage, and human behavior and the social environment. Current research interests include adolescent sexual health, African American male sexual behavior, as well as the influence of neighborhood context on the health of various groups.

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

ENCYCLOPEDIA OF CONTEMPORARY AMERICAN SOCIAL ISSUES

VOLUME 4
ENVIRONMENT, SCIENCE, AND TECHNOLOGY

Michael Shally-Jensen, Editor

ABC-CLIO

Santa Barbara, California • Denver, Colorado • Oxford, England

A

ACID RAIN

Robert William Collin

When pollution from burning fossil fuel enters the atmosphere, it can react to create acids, which then return to the earth in precipitation, having environmental consequences. Environmentalists and those living in affected communities have challenged industry and government alike over the issue of acid rain.

Acid Rain Dynamics

Moisture in the atmosphere forms small droplets of rain that gradually become larger and heavier and sink to the ground as rain. These droplets can form around dust, particulate matter, and each other. There are many sources for the pollution that forms the acid in rain. The consensus is that it is primarily industrial air emissions that contribute to acid rain. Large coal-fired power plants and factories add to this problem. The prevailing air currents carry these emissions all across the United States and the rest of the world. Airborne emissions from other industrialized and newly industrialized nations also travel long distances to other countries. Thus, the direction of the prevailing winds can determine the deposition of acid onto the earth's surface. Once the acidic gases have been emitted into the atmosphere, they follow prevailing wind circulation patterns. Most industrialized areas of the world are located within the midlatitude westerly belt, and their emissions are carried eastward before being deposited. Acid rain is possible anywhere precipitation occurs. Early scientific controversies were about the number of tree species affected and the long-term ecological impacts. Current

controversies are about whether the problem has been solved. It has a greater environmental impact than predicted by early studies. Although sulfur emissions have decreased, other emissions have increased. Some contend that mercury deposition has increased, and others consider the scope of environmental regulation inadequate.

Acidity and Ecosystem Damage

Historical weather data come from precipitation records, ice cores, and tree borings. They show an increase in acid rain starting in the late 1930s and on through the 1940s and 1950s. This was also the approximate time of a large industrial expansion in the United States and before the implementation of clean air policy in the early 1970s. Many U.S. cities used coal and natural gas in their everyday activities, depending on the dominant industry.

Acidity causes metals, such as aluminum or lead, to become soluble in water. Once in the water, acid affects plants and fish and is considered toxic to both. Acid deposition is directly damaging to human health. Its ability to corrode metals—from lead and copper pipes, for example—can be toxic to humans. The sewer and water infrastructures of many older U.S. cities have lead pipes. Increased concentrations of sulfur dioxide and other oxides of nitrogen in the air, common industrial emissions, have been causally related to increased hospital admissions for respiratory illness. In areas that have a large concentration of these airborne industrial emissions, there is an increase in chest colds, asthma, allergies, and coughs in children and other vulnerable populations. Thus, there is a strong public health concern associated with industrial emissions apart from the issue of acid rain.

Acid deposition refers to the process of moving acids to the land within a given ecology. The acids then move through the top surface of the earth, the soil, vegetation, and surface waters. As metals such as mercury, aluminum, and lead are set free owing to the increased acidity from the rain, they can have adverse ecological effects. There is also concern that some of the metals may bioaccumulate and intensify as they move up the food chain. The sustainability of an ecosystem depends on how long it takes for the system to recover, in this case from acid in the rain. The ability of some ecosystems to neutralize acid has decreased because of the cumulative impacts of acid rain over time. This slows the recovery of other parts of the ecosystem. This is why environmentalists contend that recent decreases in some industrial emissions are not likely to bring about full ecosystem recovery. In spite of partial environmental regulation, the cumulative impacts of acid rain pollutants have damaged sensitive areas of the Northeast, such as the Adirondack State Park, by impairing their ability to recover from acid shock events.

Acid rain has a range of effects on plant life. Sensitive species go first. Part of the acid rain controversy is determining which species are affected and the overall scope of the problem. Acid rain falls in any place where it rains or snows. Crops used for food

or other purposes can be negatively affected. Acid rain's effects on plants depend on the type of soil, the ability of the plant to tolerate acidity, and the actual chemicals in the precipitation. Soils vary greatly from one location to another. Soils with lime are better able to buffer or neutralize acids than those that are sandier or that contain weathered acidic bedrock. In other soils, increasing acidity causes the leaching of plant nutrients. The heavy metal aluminum causes damage to roots. This can interfere with the plants' ability to absorb nutrients such as calcium and potassium. The loss of these nutrients affects the plants' ability to grow at normal, productive rates, and the intake of metals increases their potential toxicity. For example, acid deposition has increased the concentration of aluminum in soil and water. Aluminum has an adverse ecological effect because it can slow the uptake of water by tree roots. This can leave the tree more vulnerable to freezing and disease.

Many important life forms cannot survive in soils below a pH of about 6.0. The loss of these life forms slows normal rates of decomposition, essentially making the soil sterile. When the acid rain is nitrogen-based, it can have a strong impact on plants. High concentrations of nitric acid can increase the nitrogen load on the plant and displace other nutrients. This condition is called nitrogen saturation. Acid precipitation can cause direct damage to plants' foliage in some instances. Precipitation in the form of fog or cloud vapor is more acidic than rainfall. Other factors such as soil composition, the chemicals in the precipitation, and the plant's tolerance also affect survival. Sensitive ecosystems such as mountain ranges may experience acidic fog and clouds before acid rain forms.

Acid rain falls to the earth and gradually drains to the oceans via rivers, lakes, and streams. Acid deposition erodes the quality of the water in lakes and streams. It causes lakes to age prematurely, speeding up the natural process of eutrophication. It does this in part by reducing species diversity and aquatic life. Fish are considered an indicator species of ecological health. However, ecosystems are made up of food webs of which fish are only one part. Entire food webs are often negatively affected and weakened. Environmentalists and those interested in sustainability are very concerned about ecosystem effects and are much involved in acid rain discussions.

Initial Government Action

On September 13, 2007, in Montreal, Canada, 24 nations signed the Montreal Protocol. Canada is highly motivated to solve air pollution problems because it is highly vulnerable to the effects of acid rain. This landmark environmental treaty required the phasing out of ozone-depleting chemicals and compounds such as chlorofluorocarbons, carbon tetrachloride, and methyl chloroform. There is scientific consensus that these compounds erode the stratospheric ozone layer, which protects the earth from harmful ultraviolet radiation. This radiation can cause cancer, among other environmental impacts. To date, 191 countries have signed the protocol. The United States has implemented many parts

of it more quickly and at less cost than expected. The thinning of the ozone layer mostly stopped in 1988 and 1989, almost immediately after treaty reductions began to take effect. The U.S. Environmental Protection Agency estimates that 6.3 million U.S. lives will be saved as a direct result of worldwide efforts to implement the Montreal Protocol's requirements.

The early successes of the Montreal Protocol laid the groundwork for a national approach to acid rain in the United States. The 1990 National Acid Precipitation Assessment Program (NAPAP) concluded that acid deposition had not caused the decline of trees other than the red spruce, which grows at high elevations. This became a significant scientific controversy because of its policy implications for the Clean Air Act Amendments of 1990. Some contended that 20 years of the Clean Air Act had been enough and that air pollution was no longer a severe problem. Others strongly disagreed. Recent research shows that acid deposition has contributed to the decline of red spruce trees and other important trees throughout the eastern United States. Other species, such as black flies, increase under acid rain conditions. Indicator species and mammals at the high end of the food chain show high levels of some of the pollutants in acid rain, indicating the pervasiveness of chemical exposure within the environment. For example, sugar maple trees in central and western Pennsylvania are now also declining. The Clean Air Act Amendments of 1990 included specific provisions concerning acid rain.

THE CLEAN AIR ACT AND ACID RAIN

Early concerns about acid rain provided a strong impetus to early Clean Air Act legislation. The Clean Air Act was strong, groundbreaking environmental policy. It was never complete in its coverage or thorough in its enforcement. Legislative and legal exceptions have developed. Emissions and acid deposition remain high compared with background conditions. The Clean Air Act did decrease sulfur dioxide emissions, yet these emissions remain high. Enforcement on nitrogen oxides and ammonia is sporadic. Emissions of these compounds are high and have remained unchanged in recent years. There are other emissions, such as mercury, that have only recently been regulated. The holes in environmental policy often appear as environmental impacts. Is the Clean Air Act enough? This is still a large controversy, going far beyond the debate about acid rain. Some research shows that the Clean Air Act is not sufficient to achieve ecosystem recovery. In 2003, several states, mostly in the Northeast, sued the U.S. Environmental Protection Agency (EPA) for failing to enforce the Clean Air Act, particularly as it related to greenhouse gases. (The U.S. Supreme Court found in favor of at least one state—Massachusetts—in 2009.) As the debate has moved from acid rain, to clean air environmental policy, to global warming and climate change, this important policy question is certain to be revisited many times.

Canada and the U.S. Acid Rain Controversy

One intrinsic political problem highlighted by acid rain, and involving all air pollution, is that air and water currents do not follow political boundaries. If one country's air pollution goes directly to the neighboring country, little can be done. Canadian concern about the damage from acid rain predates U.S. concern. Canada examines all possible sources for the acid rain problem, including its own contribution. Acid rain resulting from air pollution is severely affecting lakes and damaging forests. Eastern Canada is particularly hard hit because of the prevailing winds. There is a continuing controversy about actual site-specific impacts. Some studies indicate no significant changes in the presence of some degrees of acid rain. Others find that impacts for a given species are significant. Disputes of this kind are typical and tend to be ongoing. U.S.-Canadian relations have overcome some of the initial strain regarding the issue of acid rain. The U.S. government did not make much progress until land was at risk. Those efforts, exemplified by the Clean Air Act Amendments of 1990, put into policy proven measures that could reduce the emissions of pollutants causing acid rain. Since 1990, there have been a number of cooperative environmental programs involving both the United States and Canada.

Acid Rain and Art, Architecture, and Antiquities

Acid rain occurs all over the world. It is most common in areas with a history of industrialization. It has impacts on both the natural and urban environment. The impact of acid rain on the treasures of antiquity all across the planet is difficult to know. Other parts of the world still burn brown coal—that is, coal containing many impurities such as sulfur. Large industrial processes fueled by coal churn large emissions into the atmosphere with little regulation or regard for the environment. The scrubbing of coal is currently expensive but offers a way to remove the sulfur within it.

The negative effects of acid rain on historic buildings and works of art differ depending on the materials of which they are made. The effects are far-ranging, especially over time. Washington, D.C.; Philadelphia; Milan, Italy; Bern, Switzerland; and many other cities feel the impact of acid rain. In terms of traditional Western classical works of art, Italy may face the highest risk of damage from acid rain. In Italy, many works of art are made of calcium carbonate, in the form of marble. As in the case of most choices of building stone, marble was selected because it was locally available. Calcium carbonate reacts upon contact with acid rain, thus gradually tending to dissolve. Italy has a severe acid rain problem owing to its geography, prevailing winds, and the dependence on the burning of coal as a source of energy. Many classic ancient marble structures and statutes are at risk of being corroded by acid rain in Italy's cities. Northern Italy has the worst air quality in western Europe. Some of the smaller sculptures have been encased in transparent cases, which are then filled with a preserving atmosphere. Others have continued to corrode.

In the United States, limestone is the second most commonly used building stone. It was widely used before Portland cement became available. Limestone was preferred because of its uniform color and texture and because it could be easily carved. Limestone from local sources was commonly used before 1900. Nationwide, marble is used much less often than other stone types. Granite is primarily composed of silicate minerals, which are resistant to acid rain. Sandstone is also composed of silica and is resistant to most types of acid rain. Limestone and marble are primarily composed of calcium carbonate, which dissolves in weak acid. Depending on the building materials, many older U.S. cities are suffering damage due to acid rain.

How Much Acid Is There in Rain?

The term *acid deposition* is used to encompass both the dry and wet deposition of acidic compounds in acid precipitation. The most recent term used in place of *acid rain* is *atmospheric deposition,* which includes acidic compounds as well as other airborne pollutants. The term reflects the recognition that air pollution involves the complex interaction of many compounds in chemical stew within the atmosphere.

Unpolluted rain is normally slightly acidic, with a pH of 5.6. Carbon dioxide from the atmosphere dissolves to form carbonic acid, which is why normal rain is slightly acidic. When acidic pollutants combine with the rain, the acidity increases greatly. The acidity of rainfall over parts of the United States, Canada, and Europe has increased over the past 40 years. This is primarily due to the increased emission of sulfur and nitrogen oxides that accompanies increased industrialization.

The sulfur and nitrogen oxides are the common pollutants from coal-burning activities such as power generation. Many if not most of these emissions are legal in that they are within the terms of their permits from the Environmental Protection Agency (EPA) or state environmental agency. Legal or not, these pollutants are oxidized in the atmosphere and converted into sulfuric and nitric acids. These acids are then absorbed by clouds laden with raindrops. As they become heavier, they fall to the earth. This process is called acid deposition. Acidic fog, snow, hail, and dust particles also occur. The acidity of these different forms of precipitation can vary greatly.

Sources of Acid Rain

Part of the controversy about the sources of acid rain has revolved around the question of whether environmental policy could really affect the acidity of rain. Scientific debate about natural, human, and industrial causes engulfed much of the political battleground. Although the policy question was answered in the affirmative—that, yes, environmental policy can make the air cleaner—the debate about sources continues.

All forms of precipitation are naturally acidic because of naturally occurring carbon dioxide; human activities tend to add to the acidity. Nonpolluted rain is assumed to have

ENGINEERING SOLUTIONS TO ACID RAIN

One common concern of industry is that it must meet new and expensive environmental compliance requirements. It is one thing to pass a law, representatives of industry point out, but more difficult to actually implement it at the point of emission. Pollution and abatement engineering firms faced early challenges with aspects of the Clean Air Act because of the concerns raised about acid rain. The enactment of new rules and regulations for emission controls, such as best available control technologies, have required pollution and abatement control engineers to develop new ways to limit the amounts of sulfur and nitrogen in order to comply with their new permit requirements. How do chemical engineers reduce emissions and abate pollution from sulfur dioxide and nitric oxides? Here are some of the basic methods to date.

Pollution-Control Methods for Sulfur Dioxide

GAS ABSORPTION AND CHEMICAL STRIPPING: This is the standard chemical method for removing a substance from a gas stream. It requires a liquid solvent in which the gaseous component is more soluble than the other parts of the sulfur dioxide gas stream. The sulfur dioxide gas enters the absorber where it then flows up and the liquid stream flows down. Once the gas has been chemically stripped of the sulfur dioxide, it is released into the atmosphere. The toxic ash that remains is shipped to a hazardous waste landfill.

LIMESTONE WET SCRUBBERS: Coal- or oil-burning sources that produce pollutants such as sulfur dioxide use this method. First, the solid ash particulates are removed from the waste stream. They are shipped to a hazardous waste landfill. Then, the remaining sulfuric gas goes to a tower where it travels through a scrubbing slurry. This slurry is made of water and limestone particles that react with the sulfuric acid to neutralize it, producing carbon dioxide and a powdery ash. The legal destination for the final waste stream is a hazardous waste landfill.

DRY SYSTEMS: Some pollution abatement and control approaches are called dry because they do not use a wet slurry. In handling sulfur-based emissions, dry systems inject dry alkaline particles into the sulfuric acid gas stream. They neutralize the acid into an ash. The particles are then collected in the particle collection device. Dry systems avoid problems with disposal of wet sludge from wet scrubbers. They increase the amount of dry solids to be disposed of, usually in the form of fly ash. The final destination is again a landfill.

WET/DRY SYSTEMS: These systems are a combination of the wet and dry systems. They remove some pollutants, such as sulfur dioxide, from the waste stream. The sulfur-based emissions are essentially watered down and reduced to a powdery ash. The final destination for this ash is the hazardous waste landfill.

Pollution Abatement and Control Techniques for Nitrogen Emissions

Reducing nitrogen emissions is more challenging in implementation. Basically, there are two ways to reduce NOx emissions:

- Modifying combustion processes to prevent NOx formation in the first place
- Treating combustion gases after flame to convert NOx to N_2

(*continued*)

(*continued*)

Both methods incur costs and sometimes liabilities for industry. Pollution abatement and control engineers remain in high demand to assist industrial compliance with environmental laws. The next challenge with acid rain will likely be the removal of atmospheric mercury.

a pH of 5.6. This is the pH of distilled water. Natural sources of these environmentally regulated chemicals may be significant. Emissions due to human activity tend to be concentrated near historic industrial sites and older population centers. The presence of other naturally occurring substances can produce pH values ranging from 4.9 to 6.5. This scientific dynamic has kept other debates alive regarding whether government has an effective role in environmental policy if the sources are natural. pH levels are among the many factors that are monitored.

The relationship between pollutant emission sources and the acidity of precipitation at affected areas has not yet been determined. More research on tracing the release of pollutants and measuring their deposition rates to evaluate the effects on the environment is under way. This is an area of much scientific and legal controversy. If it were possible to show that a given emission definitely came from a given plant, then government would be able to assign liability to the polluter. Governments would also be able to locate sources of acid rain that comes from other countries.

Conclusion

Acid rain as a controversy in the United States has been subsumed by controversies around global warming and climate change. Many of the debates are the same, especially in terms of science and legal issues. Scientific disputes mark the continuing evolution of ways to measure the actual environmental impacts. The controversy around acid rain was an early one, historically documented as a symptom of a larger problem. It is an important historic controversy because it promoted significant, successful policies. It is also a modern controversy because it continues to provide evidence of humans' impact on the environment.

See also **Air Pollution; Climate Change; Coal; Fossil Fuels; Global Warming; Water Pollution; Sustainability (vol. 1)**

Further Reading

Brimblecombe, Peter, *Acid Rain: Deposition to Recovery.* Dordrecht: Springer, 2007.

Ellerman, A. Denny, et al., *Markets for Clean Air: The U.S. Acid Rain Program.* New York: Cambridge University Press, 2000.

Jacobs, Daniel J., *Introduction to Atmospheric Chemistry.* Princeton, NJ: Princeton University Press, 1999.

Oreskes, Naomi, and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco to Global Warming.* New York: Bloomsbury Press, 2010.

Porter, William F., "Human Impacts from Afar: Acid Rain and Mercury Deposition in the Adirondacks." In *The Great Experiment in Conservation: Voices from the Adirondack Park,* ed. William F. Porter et al. Syracuse, NY: Syracuse University Press, 2009.

Social Learning Group, *A Comparative History of Social Responses to Climate Change, Ozone Depletion, and Acid Rain.* Cambridge, MA: MIT Press, 2001.

Stanitski, Conrad L., et al., "Neutralizing the Threat of Acid Rain." In *Chemistry in Context: Applying Chemistry to Society,* 4th ed. New York: McGraw-Hill, 2003.

Tammemagi, Hans, *Air: Our Planet's Ailing Atmosphere.* Toronto: Oxford University Press, 2009.

AGING INFRASTRUCTURE

Pamela A. Collins and Ryan K. Baggett

In the last decade, the effect of aging infrastructure has become increasingly apparent within the United States. In 2003, the power grid serving the Northeast, much of the Midwest, and parts of Canada failed, leaving an estimated 50 million people without power. In 2005 the levees protecting New Orleans from flooding failed during Hurricane Katrina, and Lake Pontchartrain spilled in to the streets in one of the worst natural disasters in U.S. history. In 2007, the I-35 bridge in Minneapolis, a transportation lifeline for the growing Twin Cities population, collapsed, killing 13 and injuring 145. The degradation of the bridge was attributed to heavy use and age. As author Sydney Liles notes, "These are the infrastructure failures that make headlines. There are numerous other examples seen daily that never make the news because they do not appear to be that serious" (2009). This article analyzes infrastructure in the United States, provides a historical background on the current challenges the nation faces, and highlights several solutions identified by various stakeholders.

The term *infrastructure*, as defined by the *Oxford Pocket Dictionary of Current English* (2008), is the basic physical and organizational structures and facilities (e.g., buildings, roads, and power supplies) needed for the operation of a society or enterprise. Prior to the events of September 11, 2001, this term primarily referred to the U.S. public works system, which included systems such as roadways, bridges, water and sewer systems, airports, seaports, and public buildings. These earlier references often were put in a context of the concern for their "deteriorating, obsolete, and insufficient capacity" (Vaughan and Pollard 1984). Following the tragic events of the Oklahoma City bombing (1995) and the September 11, 2001 attacks on the World Trade Center and Pentagon, more attention was paid to critical infrastructure. Specifically, *critical*

infrastructure refers to physical and virtual assets and systems that are so vital to the country that their destruction and/or incapacitation would cause debilitating effects in terms of the nation's security, economy, public health, public safety, or any combination thereof (Collins and Baggett 2009).

U.S. Department of Homeland Security Critical Infrastructure Sectors

The Department of Homeland Security (DHS) has identified 18 separate U.S. critical infrastructure sectors, as displayed in Table 1.

These sectors include the Agriculture and Food Sector, which "comprises more than 2 million farms, approximately 900,000 firms, and 1.1 million facilities." This sector, like many of the others, is predominantly owned privately. It accounts for roughly one-fifth of the nation's economic activity (U.S. Department of Agriculture 2007). The U.S. Department of Agriculture's Agricultural Research Service (USDA-ARS) estimates that one person in eight works in some part of the agriculture/food sector. Cattle and dairy farmers alone earn about $50 billion a year in meat and milk sales. Domestically, about 10 percent of the U.S. annual gross domestic product (GDP) is related to agriculture and food production. Even without agroterrorism, livestock disease costs the U.S. economy about $17.5 billion and crop diseases account for about $30 billion (eXtension 2010).

The Banking and Finance Sector accounts for more than 8 percent of the U.S. annual GDP. This complex and diverse sector ranges from large institutions with assets greater than $1 trillion to the smallest community banks and credit unions. With more than 17,000 depository institutions, 15,000 providers of various investment products, more than 8,500 providers of risk-transfer products, and many thousands of credit and financing organizations, the financial services sector is both large in assets and in the number of individual businesses (National Association of Insurance Commissioners 2005).

The Chemical Sector is an integral component of the U.S. economy, employing nearly 1 million people and earning revenues of more than $637 billion per year. This

TABLE 1. Critical Infrastructure Sectors

Agriculture and Food	Banking and Finance
Chemical	Commercial Facilities
Communications	Critical Manufacturing
Dams	Defense Industrial Base
Emergency Services	Energy
Government Facilities	Healthcare and Public Health
Information Technology	National Monuments and Icons
Nuclear Reactors, Materials, and Waste	Postal and Shipping
Transportation Systems	Water

sector can be divided into five main segments, based on the end product produced: (1) basic chemicals, (2) specialty chemicals, (3) agricultural chemicals, (4) pharmaceuticals, and (5) consumer products. Each of these segments has distinct characteristics, growth dynamics, markets, new developments, and issues. The majority of Chemical Sector facilities are privately owned, requiring DHS to work closely with the private sector and its industry associations to identify and prioritize assets, assess risks, develop and implement protective programs, and measure program effectiveness (U.S. Department of Homeland Security 2010).

The Commercial Facilities Sector is unique because most of the entities in this sector are considered open to the public; in other words, the general public can gain access to these facilities without restrictions. The majority of the facilities in this sector are privately owned and operated and include a variety of venues and establishment within the following eight subsectors: Public Assembly, Sports Leagues, Gaming, Lodging, Outdoor Events, Entertainment and Media, Real Estate, and Retail (U.S. Department of Homeland Security 2010).

The Communications Sector's security strategy is to ensure the nation's communications networks and systems are secure, resilient, and rapidly restored after an incident. The infrastructure includes wire-line, wireless, satellite, cable, and broadcasting and provides the transport networks that support the Internet and other key information systems. Over the past 20 years, the sector has evolved from a predominantly closed and secure wire-line telecommunications network focused on providing equipment and voice services into a diverse, open, highly competitive, and interconnected industry with wireless, satellite, and cable service companies providing many of those same services (U.S. Department of Homeland Security 2010).

The Critical Manufacturing Sector contains those organizations that process iron ore and manufacture steel. It also includes any facility that is involved in smelting, refining, rolling, and extruding nonferrous metals and alloys of nonferrous metals. This sector also includes Engine, Turbine, and Power Transmission Equipment Manufacturing; Electrical Equipment Manufacturing; Vehicle Manufacturing; Aviation and Aerospace Product and Parts Manufacturing; and Railroad Rolling Stock Manufacturing (U.S. Department of Homeland Security 2010).

The Dams Sector includes the vast collection of U.S. dams, totaling approximately 82,640, many of which are privately owned and only about a tenth of which (11 percent) fall under federal regulations. Ten percent of American cropland is irrigated by water stored behind these dams, which have an average age of about 51 years. With the United States second only to Canada in the production of hydropower, U.S. dams produce more than 103,800 megawatts of renewable electricity and meet up to 12 percent of the nation's power needs (U.S. Department of Homeland Security 2010).

The Defense Industrial Base (DIB) Sector includes the Department of Defense (DoD), government, and the private sector worldwide industrial complex, with the

capabilities of performing research and development, design, production, delivery, and maintenance of military weapons systems, subsystems, components, or parts to meet military requirements. The DIB Sector includes tens of thousands of companies and their subcontractors who perform under contract to DoD (U.S. Department of Homeland Security 2010).

The Emergency Services Sector (ESS) is a system of response and recovery elements that forms the nation's first line of defense and prevention and reduction of consequences from any terrorist attack. The ESS includes the following first-responder disciplines: emergency management, emergency medical services, firefighting, hazardous materials management, law enforcement, bomb prevention and detection, tactical operations/special weapons and tactics, and search and rescue (U.S. Department of Homeland Security 2010).

The Energy Sector includes nuclear power, oil, coal, natural gas, hydroelectric and alternative sources such as wind. The United States relies on each of these fuel sources to meet the daily demand for energy. Each of these sectors is made up of a series of systems that rely on other energy infrastructure systems to move the energy source to areas as needed. The electricity segment, for example, contains more than 5,300 power plants with approximately 1,075 gigawatts of installed generating capacity. There are 133 operable petroleum refineries that include more than 100,000 miles of product pipeline. Last, there are more than 448,000 gas production and condensate wells and 20,000 miles of gathering pipeline in the country. There are more than 550 operable gas processing plants and approximately 300,000 miles of interstate and intrastate pipeline for the transmission of natural gas (U.S. Department of Homeland Security 2010).

The Government Facilities Sector includes a wide variety of buildings owned or leased by federal, state, territorial, local, or tribal governments; they are located both domestically and overseas. Many government facilities are open to the public for business activities, commercial transactions, or recreational activities. Others not open to the public contain highly sensitive information, materials, processes, and equipment. This includes general-use office buildings and special-use military installations, embassies, courthouses, national laboratories, and structures that may house critical equipment and systems, networks, and functions (U.S. Department of Homeland Security 2010).

The Healthcare and Public Health (HPH) Sector constitutes approximately 15 percent of the GDP, with roughly 85 percent of the sector's assets privately owned and operated (U.S. Department of Homeland Security 2010). Greater emphasis is placed upon the HPH Sector than any one individual hospital or medical facility because of the large number of sector assets, particularly hospitals and clinics. Protecting and preventing damage to any one asset is less vital than the ability to continue to deliver care.

The Information Technology (IT) Sector supports U.S. economic activity and other areas. Many critical infrastructure and key resources (CIKR) sectors rely on the IT Sector for products and services, including the reliable operation of networks and systems, and the movement and storage of critical data. The IT Sector accounts for about 7 percent of the U.S. GDP (World Information Technology and Services Alliance 2006). On a daily basis, more than $3 trillion worth of economic activity (e.g., securities sales settlements, check clearances, and interbank transfers) passes over secure federal financial networks (Federal Reserve Board 2010).

The National Monuments and Icons (NMI) Sector encompasses assets that are listed in either the National Register of Historic Places or the List of National Historic Landmarks. NMI sector assets share three common characteristics:

- They are a monument, physical structure, or object.
- They are recognized both nationally and internationally as representing the nation's heritage, traditions, and/or values or are recognized for their national, cultural, religious, historical, or political significance.
- They serve the primary purpose of memorializing or representing significant aspects of the nation's heritage, traditions, or values and as points of interest for visitors and educational activities.

They generally do not have a purpose or function (U.S. Department of Homeland Security 2008).

The Nuclear Reactors, Materials, and Waste Sector "accounts for approximately 20 percent of the nation's electrical use, provided by 104 commercial nuclear reactors licensed to operate in the United States. The Nuclear Reactors, Materials, and Waste (Nuclear) Sector includes: nuclear power plants; non-power nuclear reactors used for research, testing, and training; nuclear materials used in medical, industrial, and academic settings; nuclear fuel fabrication facilities; decommissioning reactors; and the transportation, storage, and disposal of nuclear material and waste" (U.S. Department of Homeland Security 2010).

The Postal and Shipping Sector processes over 500 million parcels and letters each day. It also maintains a large, geographically dispersed base of assets, systems, and personnel throughout the United States, including approximately 1 million people; 34,000 public and private operating facilities; 300,000 land vehicles; and more than 500 cargo aircraft. The U.S. Postal Service (USPS) receives, processes, transports, and distributes more than 170 billion pieces of mail domestically each year. Currently, there are approximately 1,500 postal inspectors stationed throughout the United States who enforce more than 200 federal laws covering investigations of crimes connected with the U.S. mail and the postal system (U.S. Department of Homeland Security 2010).

The Transportation Systems Sector includes aviation, highways, maritime transportation, mass transit, pipeline systems, and rails. Each of these subsectors has unique infrastructural systems and issues:

1. Aviation includes aircraft, air traffic control systems, and approximately 450 commercial airports and 19,000 additional airfields. This mode includes civil and joint-use military airports, heliports, short takeoff and landing ports, and seaplane bases.
2. The Highway Subsector encompasses more than 4 million miles of roadways and supporting infrastructure. Vehicles include automobiles, buses, motorcycles, and all types of trucks.
3. The Maritime Transportation System consists of about 95,000 miles of coastline, 361 ports, over 10,000 miles of navigable waterways, 3.4 million square miles of Exclusive Economic Zone to secure, and intermodal landside connections, which allow the various modes of transportation to move people and goods to, from, and on the water.
4. Mass Transit includes multiple-occupancy vehicles, such as transit buses, trolleybuses, vanpools, ferryboats, monorails, heavy (subway) and light rail, automated guideway transit, inclined planes, and cable cars designed to transport customers on local and regional routes.
5. Pipeline Systems include vast networks of pipeline that traverse hundreds of thousands of miles throughout the country, carrying nearly all of the nation's natural gas and about 65 percent of hazardous liquids, as well as various chemicals.
6. The Rail Subsector consists of hundreds of railroads, more than 143,000 route-miles of track, more than 1.3 million freight cars, and roughly 20,000 locomotives (U.S. Department of Homeland Security 2010).

The Water Sector includes both drinking water and wastewater utilities. There are approximately 160,000 public drinking water systems and more than 16,000 publicly owned wastewater treatment systems in the United States. Approximately 84 percent of the U.S. population receives their potable water from these drinking water systems, and more than 75 percent of the U.S. population has its sanitary sewerage treated by these wastewater systems (U.S. Department of Homeland Security 2010).

Each of the 18 sectors has a direct impact on personal and economic health of the United States, and events throughout the last decade have pointed toward the paramount need to make improvements in the country's infrastructure system. The system, of which 85 percent is owned by the private sector, is vast, expansive, and oftentimes difficult for most citizens to grasp. To complicate matters, most of these systems are fast approaching the age of 50 years or older.

When these infrastructures were developed, they were designed based upon the population at the time and the available technological resources. For example, our nation's capital has a 150-year-old sewer system; to put this into perspective, 100 years ago there were no automobiles, no airports, trucks, computers, or paved roads. Unfortunately, time and growth have taken their toll on much of the U.S. Critical Infrastructure System. The roads, public transit, and aviation systems continue to worsen, and the U.S water and sewage systems are in their worst condition in nearly 100 years.

Scope of the Problem

The most commonly referred to source on the state of U.S. critical infrastructure is the American Society of Civil Engineers (ASCE) *Report Card for America's Infrastructure*. The report provides grades on 15 categories of infrastructure within the United States. The results from both the 2005 and 2009 reports indicate that the country's infrastructure rates a cumulative grade of D. Ranking among the lowest categories were drinking water, inland waterways, levees, roads, and wastewater. Only one category, energy, improved between 2005 and 2009, going from a D to a D+. In assigning grades, the ASCE council charged with the task considers criteria such as capacity, condition, operations and maintenance, current and future funding, public safety, and resilience. As part of the assessment, the ASCE provides a financial estimate to bring the condition of the nation's infrastructure up to good condition. In 2005 this figure was estimated at $1.6 trillion, while the estimate in 2009 had risen to approximately $2.2 trillion (American Society of Civil Engineers 2009). The following examples, based on the ASCE Report Card Study, represent a snapshot of the extent to which the U.S. infrastructure is aging at alarming rates.

Within the water and environment area, the number of dams determined to be unsafe or deficient has risen from 3,500 in 2005 to 4,095 in 2007. Of that number, high-hazard-potential dams classified as deficient rose from 1,367 in 2005 to 1,819 in 2007. The rate of dam repairs is not keeping pace with the increase in the number of high-hazard dams needing rehabilitation. The gap between dams needing repair and those actually repaired is growing significantly. For example, the number of high-hazard deficient dams increased from 488 in 2001 to 1,826 in 2007. Additionally, the Association of State Dam Safety Officials found that the number of dams in the United States that could fail has grown 134 percent since 1999, to 3,346, and that more than 1,300 of those are considered "high-hazard"—meaning that their collapse would threaten lives (2007).

Within the transportation area, rail is an important component of the nation's transportation network (due to its efficiency and reduced energy consumption), supporting the economy through both commerce and tourism. Approximately 42 percent of all intercity freight in the United States travels via rail, including 70 percent of domestically manufactured automobiles and 70 percent of coal delivered to power plants

(Government Accountability Office 2006) As of 2006, railroads owned and operated 140,249 miles of track (Weatherford, Willis, and Ortiz 2007). However, most traffic travels on approximately one-third of the total network, which totals 52,340 miles.

The Northeast Corridor represents a major infrastructure challenge for Amtrak (a leading commercial rail company) and part of the difficulty with upgrading the infrastructure is the fact that the existing system was installed in the 1930s. Failure of these critical systems could bring the entire line to a halt, which would affect not only Amtrak but also the eight commuter railroads that share the Northeast Corridor (Crosbie 2008). In short, owing to a lack of adequate investment, limited redundancy, intermodal constraints, and energy system interdependencies, the rail system is not resilient.

The transportation area also includes our nation's bridges, which are approximately 43 years old on average and, when built, were estimated to last approximately 50 years (American Association of State Highway and Transportation Officials 2008). There are approximately 600,000 bridges currently being used in the United States. Of those, nearly 15 percent are considered categorized as functionally obsolete and 12 percent designated as structurally deficient. This accounts for about one in four rural bridges classified as deficient and one in three urban bridges as deficient (U.S. Department of Transportation 2010).

Additionally, a 2008 publication by the Pew Research Center compiled several alarming statistics regarding the current challenges with the U.S. Transportation Infrastructure. According to the U.S. Department of Transportation, more than 25 percent of America's nearly 600,000 bridges need significant repairs or are burdened with more traffic than they were designed to carry. The Federal Highway Administration estimates that approximately a third of the nation's major roadways are in substandard condition—a significant factor in a third of the more than 43,000 traffic fatalities in the United States each year. Several factors contribute to the challenges the country faces regarding infrastructure, as noted above. First, by 2007, the U.S. population grew to 303 million, up from 130 million 50 years earlier. Over the next 50 years, the population is expected to grow to 435 million. This represents a serious issue, as infrastructure built decades ago was never designed to handle the frequency of use represented by such a substantial increase in population. For example, in 2007 our highways carried 246 million vehicles, as compared with 65 million vehicles in 1955. This number is expected to reach nearly 400 million by 2055 (Jackson 2009).

The 2007 and 2008 Infrastructure reports detailed not only the dilapidated condition of U.S. infrastructure compared to that in European and Asian nations but also how an insular form of local planning and the lack of a cohesive national policy result in "congenital congestion and diminishing capacity" (American Society of Civil Engineers 2009). Transportation bottlenecks—road, freight, and airport—worsen while, at the same time, water supplies in many regions diminish and the power grid is put under more and more strain. (Ernst and Young 2009).

Potential Solutions

In an effort to remedy the challenges noted above, many stakeholders have proposed solutions to upgrade the status of the nation's infrastructure over the next several years. Commonalities among these solutions include a greater reliance on private sector funding/capital, encouraging elected officials to make infrastructure improvement a top priority, and the development of a national plan or strategy. With regard to a national plan, many present the 1956 Highway Act, developed by President Dwight Eisenhower, as a model for a nationwide critical infrastructure improvement plan. The 13-year, $27.5-billion project resulted in the development of the National Highway System. Eisenhower realized that the availability of skilled labor, the need for highways, and a demand for consumer goods could make the National Highway System a reality (Turnley 2004).

Infrastructure 2009: Pivot Point, produced by Urban Land Institute and Ernst and Young, recommends a four-pronged approach for revamping infrastructure in the United States. First, the setting of national policy (a national infrastructure plan) is encouraged to take into account current and future infrastructure needs as well as increasing population projections. Next, stakeholders are encouraged to plan holistically to reduce congestion, lessen the carbon footprint, rely less on foreign oil, and ensure adequate water supplies. After this strategy is put into place, the authors suggest a careful analysis of the government framework to ensure that the actions are executed and managed. Last, the authors realize that infrastructure improvements, no matter how effective the strategy, will require funding. It is suggested that private capital be attracted and a stronger effort made to advance public/private partnerships. Other tax-restructuring plans and technology implementation advancements are also discussed as an option for revenue generation (American Society of Civil Engineers 2009).

Additionally, the American Society of Civil Engineers report mentioned earlier in this article provides five key solutions for maintaining and improving the nation's infrastructure. First, the authors note that an increase in federal leadership in the area of infrastructure is essential. These leaders must develop a strong national vision to be shared by all levels of government and the private sector. Next, greater efforts toward the promotion of resiliency and sustainability must be undertaken. The nation's infrastructure must be designed to withstand and protect, while using sustainable materials and practices. As noted in the *Pivot Point* article, well-conceived plans and strategies must be developed to "complement our broad national goals of economic growth and leadership, resource conservation, energy independence, and environmental stewardship" (American Society of Civil Engineers 2009, 12). Before significant investment is made in infrastructure development, a detailed cost analysis should be conducted to ensure all costs are anticipated during the lifecycle of the specific infrastructure. Last, the authors contend that infrastructure improvement will be successful only if investments are increased

and improved from all stakeholders. These stakeholders include all levels of government, private sector owners, and users (American Society of Civil Engineers 2009).

Providing a homeland security perspective, former U.S. Department of Homeland Security Secretary Michael Chertoff outlines a three-step process that combines both the protection and maintenance of infrastructure. First, he contends that a risk-based approach (similar to the model used to counter terrorist threats) should be implemented to address the need for both the maintenance and protection of infrastructure. Next, he suggests that federal agencies should examine the top 500 to 1,000 high-consequence and high-risk assets to determine their vulnerability. After the vulnerability assessment, he notes that a strategy for maintenance and protection can be developed that effectively estimates the cost of long-term maintenance on the existing infrastructure. Last, the strategy has to be funded, implemented and continued. Chertoff notes that he has observed many "worthy projects begin with a great deal of hoopla and public support, only to watch commitment wane once the television lights are off and the media moves on to the next issue" (Chertoff 2008, 13).

Conclusion

Aging and decaying infrastructure is not only an inconvenience to citizens of the United States; more importantly, it creates public safety issues that are accompanied by potentially devastating economic consequences. In addressing the state of infrastructure in the United States, this article has provided an overview of critical infrastructure sectors, the scope of the existing infrastructure challenges, as well as potential solutions. As awareness of the growing infrastructure problem increases, with events such as growing traffic congestion, airport delays, inadequate school facilities, and rolling blackouts/brownouts, it is hoped that the priority of infrastructure improvements will be increased in federal, state, and local jurisdictions. Despite the varying estimates of financial obligations that loom over the country, the fact remains that infrastructure must be improved with an eye toward population growth, increased infrastructure usage, and the modernization of development strategies, materials, and technologies.

See also **Airport and Aviation Security; Nuclear Energy; Transportation and the Environment; Supply Chain Security and Terrorism (vol. 1)**

Further Reading

American Association of State Highway and Transportation Officials (AASHTO), *Bridging the Gap*. www.transportation1.org/BridgeReport/front-page.html

American Society of Civil Engineers, *2009 Report Card for America's Infrastructure*. http://apps.asce.org/reportcard/2009/grades.cfm

Association of State Dam Safety Officials, "State and Federal Oversight of Dam Safety Must Be Improved." www.damsafety.org

Chertoff, M., "Preserving Infrastructure: A 21st Century Challenge." *Parameters* (Winter 2008): 5–13. www.carlisle.army.mil/USAWC/Parameters/Articles/08winter/chertoff.pdf

Collins, P. A., and R. K. Baggett, *Homeland Security and Critical Infrastructure Protection*. Praeger Security International. Westport, CT: Praeger, 2009.

Crosbie, W. L., Testimony before House Transportation and Infrastructure Committee. October 29, 2008. http://transportation.house.gov/Media/File/Full%20Committee/20081029/Crosbie.pdf

eXtension, *Food Safety Agrosecurity Overview,* 2010. http://www.extension.org/pages/Food_Safety_Agrosecurity_Overview

Federal Reserve Board, "Telling the Fed's Story through Money in Motion." 2010. www.phil.frb.org/publicaffairs/pubs/ar03telling.pdf/

Government Accountability Office, Freight Railroads: Industry Health Has Improved, but Concerns about Competition and Capacity Should be Addressed. October 2006.

Jackson, L., "We Must Do Something Now! Our Nation's Transportation Infrastructure Is Deteriorating." *Defense Transportation Journal* (February 2009).

Kelderman, E., "Look Out Below! America's Infrastructure Is Crumbling." Stateline.org/Pew Research Center, 2008. http://pewresearch.org/pubs/699/look-out-below

McNeil, J. B., *Building Infrastructure Resiliency: Private Sector Investment in Homeland Security.* Washington, DC: Heritage Foundation, 2008.

National Association of Insurance Commissioners, *2004 Insurance Department Resources Report.* Washington, DC: NAIC, 2005.

National Research Council, *Transportation Research Board (TRB) Special Report 27: Deterrence, Protection, and Preparation—The New Transportation Security Imperative.* July 2002.

Turnley, A., *National Strategy for Protecting the Infrastructure: A Visionary Approach.* USAWC Strategy Research Project. Carlisle, PA: U.S. Army War College, 2004.

The Urban Land Institute and Ernst and Young, *Infrastructure 2009: Pivot Point.* Washington, DC: Urban Land Institute, 2009.

U.S. Department of Agriculture, *Agriculture and Food Sector Specific Plan,* 2007. http://www.dhs.gov/xlibrary/assets/nipp-ssp-ag-food.pdf

U.S. Department of Homeland Security, "Critical Infrastructure and Key Resources." 2010. http://www.dhs.gov/files/programs/gc_1189168948944.shtm

Vaughan R., and R. Pollard. *Rebuilding Americas,* Vol. 1: *Planning and Managing Public Works in the 1980s.* Washington, DC: Council of State Planning Agencies, 1984.

Weatherford, B. A., H. H. Willis, and D. S. Ortiz, *The State of U.S. Railroads: A Review of Capacity and Performance Data.* Santa Monica, CA: Rand Supply Chain Policy Center, 2007.

World Information Technology and Services Alliance, "Digital Planet 006: The Global Informant on Economy," 2006. www.witsa.org/digitalplanet/2006/DP2006_ExecSummary.pdf

AIR POLLUTION

Robert William Collin

Smog, acid rain, methane, and other forms of outdoor air pollution, as well as air pollution inside homes and other buildings, can all affect the environment. Cars, trucks, coal-burning energy plants, and incinerators all make controllable contributions to air

pollution. New environmental air pollution regulations continue to decrease emissions but with industry resistance.

Air

Air quality has been a driving force for U.S. and global air pollution control. It can be quite different from region to region and over time. Geological features such as deep mountain valleys may facilitate dangerous atmospheric conditions when on the downwind side of industrial emissions, heavy car and truck traffic, and wood and coal stoves. Points of contention in the air quality debate are scientific monitoring of air quality conditions, debate over what chemicals to regulate as pollution, and environmentalists' concerns over weak and incomplete enforcement. Each one of these is a controversy itself.

Public Health

One of the primary criteria for an airborne chemical to be a pollutant is its effect on public health. One of the first areas of public concern about air pollution is breathing.

Asthma is becoming more common. This is true even though some air pollutant concentrations have decreased. The increase in asthma is concentrated in people of color and low-income people. The incidence of acute asthma attacks in children doubled in the last 13 years even as very effective medicines were developed. About five million child hospitalizations were children who had asthma attacks. It is the most frequent cause of childhood hospitalization. Deaths of children with asthma rose 78 percent from 1980 to 1993. It is concentrated in high-population urban areas. This one environmental effect of air pollution can spread to inner-ring suburbs then to air regions over time. Asthma is described as like breathing through a straw. The serious public health issues around air pollution highlight the gravity of the problem as a whole.

Air pollution can have short- and long-term health effects. Asthma from air pollution can have short- and long-term effects. Short-term effects of asthma are irritation to the eyes, nose, and throat. Long-term reactions to air pollution can include upper respiratory infections such as bronchitis and pneumonia. Other symptoms of exposure to air pollution are headaches, nausea, and allergic reactions. Short-term air pollution can aggravate underlying medical conditions of individuals with asthma and emphysema. Long-term health effects are more controversial. Depending on the type of air pollution, there is general consensus that exposure can cause chronic respiratory disease, lung cancer, heart disease, and damage to the brain, nerves, liver, or kidneys. Continual exposure to most kinds of air pollution affects the lungs of growing children by scarring them at early stages of development. Recent studies suggest that the closer one is raised to a freeway in southern California, a notoriously low-quality air region overall, the greater the chance of having one of the listed long-term effects.

WHAT OZONE DOES TO LUNGS

The usual regulatory approach to environmental air pollution policy is the application of cost–benefit analysis to human health and environmental conditions. Although it is value-neutral, this approach can overlook the actual pain and suffering experienced by people in communities. Many communities experience contaminant flows and exposures, some over long periods of time. The application of cost–benefit analysis in the development of air pollution policy generally permits a certain risk of death from cancer per population. There are many other risks and costs, many of a currently unknown nature, short of cancer. They can affect both individual health and the health of a community. Particulate matter is associated with early and unnecessary deaths, aggravation of heart and lung diseases, reduction in the ability to breathe, and increases in respiratory illnesses. This, in turn, can lead to increased school and work absences. Cancer itself can have many causes other than air pollution. Nonetheless, it is known that air pollution can have long-term health effects depending on the type of pollution and the age of the exposed person. The exposure of young people to ozone is particularly controversial because they do not enter into the cost–benefit analysis unless they die of cancer. However, by ignoring this cost, society may face even greater costs later.

Ozone causes chronic, pathologic lung damage. Human lungs are like filters, cleaning the air of whatever contaminants are encountered. What they do not remove can enter the bloodstream. At the levels experienced in most U.S. urban areas, ozone irritates cell walls in lungs and airways. This can cause tissues to be inflamed. This cellular fluid seeps into the lungs. Over time, especially if that time includes early childhood, the elasticity of the lungs decreases. Excessive exposure to high levels of air pollution in childhood can impair lung development for life. Susceptibility to bacterial infections can increase. Scars and lesions can develop in the airways of children chronically exposed to ozone. Ozone's effects are not limited to vulnerable populations. At ozone levels in most warm-weather U.S. cities, average, healthy, nonsmoking young males who exercise can experience ozone impacts. Ozone exposure can shorten life and cause difficult breathing.

Hospital and emergency admissions increase as ozone levels increase. School and work absences increase. The level of human concern, from mother to child, increases as concern for our own and our loved ones' health rises. The intangible psychological factors of dread and fear weigh heavily on those who breathe polluted air. Ozone exposure is one of many.

Cumulative exposure to polluted air does aggravate or complicate medical conditions in the elderly. Some air pollution risk is involuntarily assumed. However, people die prematurely every year in the United States because of smoking cigarettes and voluntarily increasing other risk factors. Members of these communities label this type of risk assessment as blaming the victim. The involuntary assumption of health risks is something most communities strongly object to. With the advent of the Toxics Release Inventory many communities can track airborne industrial emissions. Citizen

monitoring of environmental decisions has increased, especially around air quality issues.

State of Air Pollution

The air becomes polluted in different ways. How the air becomes polluted determines the types of problems it causes. Different sources of emissions contain different chemicals. These may interact with other airborne chemicals in unknown ways. As the chemicals mix with moisture in the air they can become rain. The rain can move the chemicals through the ecosystem, including crops and livestock. Mercury, lead, and aluminum all move in this way, with adverse ecological effects. There may be other chemicals with adverse ecological effects that do not last as long as metals do and may therefore be hard to detect while present. Air pollution can expose populations to more than just airborne pollution.

What Is Pollution?

The term *pollution* has important legal and environmental meanings. Legally, it means that a person or business is not complying with environmental laws. Many environmentalists do not think this is extensive enough and believe that large environmental impacts can be considered pollution even if they are legal. Many permits do not in fact decrease emissions but permit more emissions.

Many permits have numerous exceptions to emissions. The petrochemical industry is allowed *de minimus,* fugitive, and emergency emissions beyond the permit, and that industry is leaking a valuable commodity. Industry argues that if it complies with all the environmental laws, then its emissions are not pollution because they are part of the permit issued by the Environmental Protection Agency (EPA) via the respective state environmental regulatory agency. Although state and federal environmental agencies argue with the regulated industries, communities, and environmentalists, the actual environmental impact has worsened. Whereas many environmental decisions are made behind closed doors, more and more communities are monitoring the environment themselves.

One type of air pollution is particulate matter. The particles are pieces of matter (usually carbon) measuring about 2.5 microns or about 0.0001 inches. Sources of particulate matter are the exhaust from burning fuels in automobiles, trucks, airplanes, homes, and industries. This type of air pollution can clog and scar young, developing lungs. Some of these particles can contain harmful metals. Another type of air pollution is dangerous gases such as sulfur dioxide, carbon monoxide, nitrogen oxides, and other chemical vapors. Once in the atmosphere they follow the prevailing winds until they condense and fall to the ground as precipitation. This type of pollution can participate in more chemical reactions in the atmosphere, some of which form smog and acid rain. Other

atmospheric chemical reactions are the subject of intense scientific controversy and are part of the debates of global warming and climate change.

Most air pollution comes from burning fossil fuels for industrial processes, transportation, and energy use in homes and commercial buildings. Natural processes can emit regulated chemicals at times. It is a subject of continuing scientific debate, both generally and specifically, how much of a given chemical is naturally emitted versus how much of the emission is from human actions.

The Natural Resources Defense Council closely tracks the air emissions of the biggest polluters. They call it their benchmarking project. They are a nonprofit environmental advocacy organization that believes in keeping track of environmental conditions to establish a baseline. Their research is based on publicly available environmental information, much of it available in the Toxics Release Inventory. Key findings of the benchmarking project's 2004 report include the following:

- Emissions of sulfur dioxide and nitrogen oxides have decreased by 36 percent and 44 percent, respectively, since the stricter pollution-control standards of the 1990 Clean Air Act went into effect.
- Carbon dioxide emissions increased 27 percent over the same period.
- Carbon dioxide emissions are expected to spike in coming years due to a large number of proposed new coal plants.
- Wide disparities in pollution rates persist throughout the electricity industry with a small number of companies producing a relatively large amount of emissions.
- Few power plants use currently available, state-of-the-art emissions control technologies.
- The electric power industry remains a major source of mercury emissions in the United States.

The Natural Resources Defense Council's benchmarking project uses public data to compare the emissions performance of the 100 largest power producers in the United States. They account for 88 percent of reported electricity generation and 89 percent of the industry's reported emissions. Emissions performance is examined with respect to four primary power plant pollutants: sulfur dioxide, nitrogen oxides, mercury, and carbon dioxide. These pollutants cause or contribute to global warming and to environmental and health problems including acid rain, smog, particulate pollution, and mercury deposition.

Indoor Air Pollution

The air inside of buildings can be as polluted as outside air. Indoor air can accumulate gases and other chemicals more quickly than outside air. Cooking, heating, smoking,

THE MOST POLLUTED TOWN IN THE UNITED STATES

The town with the most bad air days per year is Arvin, California. It has averaged about 73 bad air days per year since 1974. It is a small town with very little industry or traffic situated on the valley floor between the Sierra Nevada and Tehachapi Mountains in southern California. Air pollution comes in from the east with the prevailing winds. It comes from the large industrialized California communities of Fresno, Bakersfield, Stockton, and the San Francisco Bay area. The problem has been getting worse for this predominantly Hispanic community. The San Joaquin Valley Air Pollution Control District, where Arvin is located, recently passed a controversial cleanup plan, part of which calls for encouraging cleaner-running vehicles in Arvin and in Fresno. City buses and public vehicle fleets can reduce emissions, but not soon enough for everyone. The community has also considered various legal actions, primarily based on issues of environmental justice and unequal enforcement of environmental laws. Whole communities feel as though their health were threatened. Once this mass of polluted air moves out of the valley, it continues to have environmental impacts. One of the prominent national parks, Sequoia National Park, feels the impact of this waste stream of air pollution. It has among the highest number of bad air days in the country.

painting, new carpeting and glue, and heavy electronic equipment usage can all affect indoor air quality. Large numbers of books without adequate ventilation can cause carbon dioxide to build up. As most people spend most of their time indoors, the exposure to this air is much greater. Vulnerable populations, such as the very young and very old, spend even more time inside. Depending on the pollutants, indoor air pollution can lead to mold and fire hazards.

Conclusion

The controversies around air pollution show no signs of abating. Points of concentrated air pollution are getting more attention and becoming political battlegrounds.

Ports are the latest example of this. On September 5, 2007, the EPA began a research project to test equipment that measures air emissions by equipment used in ports to move goods around docks and on and off cargo ships, trucks, and trains. Most of this equipment burns diesel fuel. The EPA wants to test new equipment that can recapture the energy of hydraulic brakes and thereby use less polluting fuel. They are predicting fuel savings of 1,000 gallons per vehicle per year, with decreased maintenance costs for the fleet. The EPA is working with the Port Authority of New York and New Jersey, Kalmar Industries, Parker Hannifin Corporation, and the Port of Rotterdam. Port authorities are very powerful independent legal entities that can neither tax nor be taxed. They issue bonds. Interest on bonds is not income for federal tax

purposes, or for state tax purposes if issued in that state. Wealthy individuals can reduce their tax liability and invest in the country's infrastructure. Historically, this was done in the West with railroad bonds. Authorities are creatures of state law, but very little is required in the way of public participation or environmental planning. Port authorities are able to resist many environmental requirements, especially if they involve several different states. The environment and ecology of ports are often toxic and unappealing. Ports are places where many ships empty their bilges of waste, often illegally. Some states have passed legislation to prevent cruise ships from dumping their wastes in their ports, such as California. Ports have also been the site of land-based waste-dumping practices. Along tidal areas many communities did this with the idea that the tide would take it away. Wastes from fishing and fish processing can also add to the mix. Ports are also the terminus of many rivers that have collected agricultural runoff, municipal sewage, industrial water discharges, and other types of waste. Ports are among the most environmentally challenging ecosystem reconstruction projects in the United States. In early 2000 many port authorities began to incorporate principles of sustainability into their long-range strategic corporate planning. The cumulative effects of waste, the increasing liability for clean up costs and its accounting as a contingent liability, and increasing urban environmental activism all undercut achieving anything sustainable in an environmental, business, or social sense. Port authorities now partner with the EPA around air pollution, expressly motivated by a concern about sustainability. New controversies will also emerge from these new policies, such as how clean is clean.

The environmental policies and laws do have the intended effect of reducing the emissions of some chemicals emitted by most industries. However, asthma rates increase and so too does community concern. It is likely that the costs of further decreasing emissions from industry, from municipalities, and from all of us will be more expensive. The current context of global warming and rapid climate change drives many air pollution controversies to center stage.

See also **Acid Rain; Automobile Energy Efficiencies; Climate Change; Coal; Cumulative Emissions; Global Warming**

Further Reading

Bas, Ed, *Indoor Air Quality: Guide for Facility Managers,* 2d ed. New York: Marcel Dekker, 2004.

Harrap, D., *Air Quality Assessment and Management.* London: Spon Press, 2002.

Lipfert, Frederick W., *Air Pollution and Community Health.* New York: Wiley, 1994.

Moussiopoulos, Nicolas, ed., *Air Quality in Cities.* New York: Springer, 2003.

Schwartz, Joel, *Air Quality in America.* Washington, DC: AEI Press, 2007.

Simioni, Daniela, *Air Pollution and Citizen Awareness.* New York: United Nations Publications, 2004.

AIRPORT AND AVIATION SECURITY

Bartholomew Elias

The terrorist attacks of September 11, 2001, and the response to those attacks have made aviation and airport security a focal issue for the past several years. On that day, teams of hijackers tied to al Qaeda, a radical Islamic terrorist group, commandeered four domestic flights in the United States, crashing two airplanes into the World Trade Center towers in New York City and one into the Pentagon near Washington, DC. The fourth crashed in a farm field in western Pennsylvania, presumably after passengers had learned of the terrorists' intentions and attempted to regain control of the aircraft. Nearly 2,000 people lost their lives in the attacks. Immediately following the attacks, the United States government moved swiftly to pass the Aviation and Transportation Security Act (ATSA) (Public Law 107–171). ATSA established the Transportation Security Administration (TSA), giving it direct responsibility for conducting passenger and baggage screening using a workforce of federal security screeners.

Responsibility for Airport and Aviation Security

Before 9/11, aviation security policies and practices in the United States had evolved out of an emerging need to address increasingly violent hijacking incidents in the early 1970s. Airlines were given the responsibility for mandatory passenger screening, which they, in turn, delegated to contract security firms. Physical security of the airport property, including perimeter security and access control systems for airport workers, however, was placed in the hands of airport operators. The Federal Aviation Administration (FAA) was responsible for regulating airport and airline security, although it had not issued regulations governing the contract security firms that conducted passenger screening. Such regulations had been proposed a year prior to the 9/11 attacks in response to a statutory mandate issued in 1996 (FAA 2000).

Following the 9/11 attacks, the U.S. Congress immediately began examining alternative models for aviation security. Lawmakers expressed considerable concern over low wages and high turnover rates among contract airport screeners. In 1999, the average hourly wage for airport screeners was $5.75, and many screeners did not receive additional benefits. Consequently, at several airports, annual screener attrition exceeded 100 percent (FAA 1999). Policymakers concluded that low pay and inexperience among screeners and lax oversight compromised aviation security. Congress learned that in Canada and in several European countries, both passenger screening and physical security of the airport property were instead the responsibility of airport operators, or in some cases government security forces, and not the airlines. Under these systems, screeners received more training and better pay than contract screeners in the United States, and limited data indicated that they performed better as well (United States General Accounting Office 2001). Under ATSA, the United States established a system

under which passenger and baggage screening became the responsibility of the newly formed federal TSA, while airport physical security remained in the hands of the airport authorities. The TSA took over responsibility for regulating all aspects of airport and airline security from the FAA and was given broad authority to implement security measures to detect, prevent, and mitigate threats to aviation.

Passenger and Baggage Screening

Beginning in the early 1970s, the United States and other countries began deploying walk-through metal detectors (WTMDs) and carry-on baggage X-ray systems for preboarding screening. These technologies have served as the primary means for screening passengers for more than 30 years. By the mid-1980s, X-ray screening was also being used on a limited basis to screen checked baggage, usually on international flights, as a means to supplement procedures, known as positive passenger bag matching (PPBM), designed to ensure that passengers boarded with their baggage. By the late 1990s, the FAA had deployed about 100 explosives detection system (EDS) machines to screen high-risk baggage on a small number of international flights, but most checked bags were not physically screened (National Research Council 1999).

Following the 9/11 attacks, the United States mandated that all checked baggage undergo explosives detection screening using either EDS machines, which rely on the same principles at computed tomography (CT) scanners widely used in the medical field; explosives trace detection (ETD) systems, which utilize chemical analysis techniques to detect trace amounts of explosives residue or vapors; or other approved methods (see 49 U.S. Code, Sec. 44901). Efforts remain underway to integrate bulky EDS machines into airport baggage handling systems to improve the efficiency of screening the large amount of checked baggage processed at U.S. airports.

While these actions are addressing the threat of explosives placed in checked baggage, there has been growing concern over explosives carried into the aircraft cabin by passengers or in carry-on items. The 9/11 Commission (2004) formally recommended that the TSA give priority attention to implementing technology and procedures for screening passengers for explosives, and provisions to improve checkpoint technologies to detect explosives were included in the Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108–458). In response, the TSA initially pilot tested walk-through trace detection portals, or puffer machines, and implemented procedures for conducting pat-down searches of passengers for explosives. Full deployment of the trace detection portals, for use in secondary screening of selected passengers, had been part of the TSA's original strategy for screening passengers for explosives. The machines, however, suffered from reliability issues blamed largely on dirt and humidity in the airport environment (Fiorino, Compart, and Wall 2010).

The TSA has since changed its strategy, focusing instead on whole-body imaging (WBI) technologies, also referred to as advanced imaging technology or AIT, that

utilize either X-ray backscatter or millimeter wave imaging techniques to screen passengers and detect threat items concealed underneath clothing. The TSA has implemented procedures, including remote monitoring and privacy filters, to protect passenger identity and dignity and to prevent the storage of passenger images. Privacy advocates have nonetheless raised objections about the use of these screening devices, particularly as a primary screening method (Sparapani 2006).

The TSA is also investing in advanced technology (AT) X-ray equipment, capable of providing multiple view angles and automated threat detection capabilities to improve the screening of carry-on items, and handheld bottled liquids scanners to screen for liquid explosives. The need for bottled liquid screening capabilities emerged following a foiled plot to bomb airliners departing the United Kingdom for North American airports using homemade liquid explosives concealed in soft drink bottles that was uncovered in August 2006. Artful concealment of explosives and other threats carried by passengers remains a key concern. The December 25, 2009, attempted bombing of an international airline flight on approach to Detroit, using an explosive device concealed in the suspect's underwear, reinvigorated debate over policies and strategies for detecting explosives on passengers and in carry-on items. In response, the TSA has pushed for accelerated deployment of WBI systems and other checkpoint screening technologies (Karp 2010).

The cost of passenger and baggage screening and screening technologies, which totaled about $4.5 billion in fiscal year 2010, is paid in part by security fees charged to airlines and airline passengers and in part by general tax dollars collected by the federal government.

Passenger Prescreening and Behavioral Observation

Aviation security measures also rely on intelligence information to prevent suspected terrorists from boarding aircraft or to subject persons that may pose a security threat to additional screening. Prior to the 9/11 attacks, the FAA maintained a small "no-fly" list of known terrorists. Airlines were to deny boarding to any individuals on this list, however none of the 9/11 hijackers were on the list which, at the time, contained only 12 names (9/11 Commission 2004). After 9/11, the list was greatly expanded, and as of 2008 was reported to consist of about 2,500 names (TSA 2008a). The no-fly list is a subset of a larger terrorist screening database (TSDB), a list of about 400,000 individuals maintained by the Terrorist Screening Center (TSC), a unit of the Federal Bureau of Investigation (FBI). The TSDB is comprised of names of suspected and known terrorist compiled from domestic law enforcement databases and information on international terrorists compiled within the Terrorist Identities Datamart Environment (TIDE). The TIDE is a repository of foreign intelligence information on suspected terrorist operatives maintained by the National Counterterrorism Center (NCTC).

The TSA's Office of Intelligence continually updates the no-fly list by reviewing derogatory information contained in the TSDB to pinpoint those individuals believed to pose a specific threat to aviation. It also maintains a second larger list, known as the automatic selectee list, of individuals with possible ties to terrorism who are required to undergo additional checkpoint screening. In the past, the no-fly and automatic selectee lists were provided to the airlines, which were responsible for checking passenger names against these lists. However, the TSA has now implemented a system called Secure Flight, under which airlines provide passenger data, including items such as address and date of birth, to the TSA, which checks this information against the lists and notifies the airlines electronically of a match.

Additionally, airlines continue to utilize the Computer Assisted Passenger Prescreening (CAPPS) system, developed by the FAA in the 1990s, to evaluate passenger records for potentially suspicious characteristics, such as buying a one-way ticket using cash. Passengers determined to be of elevated risk based on the analysis performed by CAPPS may also be selected for secondary screening measures.

The TSA also deploys Behavior Detection Officers (BDOs) to observe passengers for possible indicators of hostile intent as part of a program known as Screening Passengers by Observation Techniques (SPOT). While the TSA has implemented SPOT at most major airports, government auditors found that the program has not been validated (United States Government Accountability Office 2010), and behavioral scientists have raised questions over the merits of the program (Weinberger 2010).

Airport Security

Whereas the TSA is responsible for prescreening and screening airline passengers, airport operators, with the assistance of state and local law enforcement, are responsible for the physical security of airport property including perimeter security and surveillance measures, access controls, and law enforcement support. Although the TSA (2006a) has published guidelines for integrating security elements in the design of airport terminals and facilities, no formal standards exist and solutions are tailored to the needs of specific airports. Since 9/11 many airports have invested in security technologies to enhance surveillance capabilities and improve perimeter protection. Airport security systems may include closed circuit television (CCTV) cameras, infrared sensors and thermal imaging cameras, computer vision systems to detect and alert security personnel regarding possible threats, ground surveillance radar, ground vehicle tracking, and integrated security solutions to tie together assorted sensors and surveillance technologies.

Airport operators also have the responsibility for coordinating law enforcement presence and support to intervene in security incidents as necessary and typically do so through formal arrangements with local or state law enforcement agencies. The TSA has entered into agreements at many airports to partially reimburse these law enforcement

agencies for providing federally mandated coverage and law enforcement assistance to checkpoint screeners.

Airport operators are also responsible for implementing access control measures and issuing access credentials to airport workers. Airport workers must pass TSA criminal history records checks (CHRCs) and terrorist threat assessments before gaining unescorted access to secured areas. There has been considerable interest in implementing biometric credentials for airport access controls. While various biometric credentialing systems are being considered and evaluated for authenticating the identities of armed law enforcement officers, airline crews, and airport workers, uniform standards for biometric aviation security credentials have not been established and the use of biometrics in airport security is still relatively limited.

In-Flight Security Measures

ATSA included language requiring the installation and use of reinforced cockpit doors on passenger airliners. Other in-flight security measures used in some cases or under consideration include secondary flight deck barriers, video monitoring of the airline cabin from the cockpit, wireless devices for communication between pilots and flight attendants, and uninterruptable transponders that continuously report aircraft position and cannot be disabled by hijackers. Basic self defense training is provided by the airlines and the TSA offers voluntary advanced self defense training programs for pilots and flight attendants.

Since 9/11, the United States has deployed thousands of armed federal air marshals. Although the total number in the Federal Air Marshal Service (FAMS) is classified, air marshals typically work undercover in teams and, by law, are required to be on every flight considered high risk (49 U.S. Code, Sec. 44917). Prior to the 9/11 attacks, the number of air marshals had been reduced to 33 and deployments were limited to a small number of international flights (9/11 Commission, 2004). While FAMS expanded significantly following 9/11 and had an annual budget of almost $900 million in 2010, some media reports have raised concerns that FAMS cover only a very small percentage of daily flights (Griffin, Johnston, and Schwarzchild 2008).

In addition to deploying FAMS, considerable policy debate following the 9/11 attacks centered on whether allowing pilots to receive special training and authorization to carry firearms in the cockpit could serve to deter and prevent aircraft hijackings. Despite concerns raised by some aviation safety experts over the introduction of firearms in the cockpit, in 2002 the United States enacted legislation creating the Federal Flight Deck Officer (FFDO) program. Under the program, volunteer airline pilots that pass background checks receive firearms training and are issued a handgun to be used only on flights to protect the cockpit from hijackings and other threats. While the program has trained about 10,000 pilots through 2009 at an annual cost of about $25 million, pilot groups have complained that the remote location of the training site and

other procedural requirements of the program have discouraged additional pilots from participating.

Options for Protecting Aircraft from Shoulder-Fired Missiles

On November 28, 2002, terrorists launched two shoulder-fired missiles at an Israeli charter jet departing Mombasa, Kenya. Following the incident, the United States Department of Homeland Security (DHS) initiated a program examining the feasibility of adapting missile protection systems deployed on some military aircraft for use on passenger jets. While the program resulted in the certification of two aircraft-based systems that can redirect a heat-seeking missile by focusing a laser on the missile's tracking system, these countermeasures have not been mandated and airlines have not voluntarily installed them on fleet aircraft. Other concepts for protecting airliners, including ground-based missile countermeasures and anti-missile systems installed on unmanned patrol aircraft deployed in airspace around an airport, have also been studied on a limited basis. The future utilization of these technologies remains uncertain, although there is still some particular interest in equipping airliners contracted to carry military troops into hostile areas with certified anti-missile systems. At present, however, the main deterrents against shoulder-fired missile attacks targeting civilian aircraft are law enforcement patrols and surveillance of likely launch sites around airports.

Shoulder-fired missiles remain a considerable security concern because they are widely proliferated on the black market and have the capability to down airliners flying below about 15,000 feet, making them a potential threat at considerable distances from an airport, sometimes as far away as 30 to 40 miles. With increased security to prevent aircraft bombings and hijackings, some experts fear that terrorists may resort to shoulder-fired missile attacks.

Air Cargo Security

Amid heightened security to screen passengers and baggage, concerns have also been raised over the possibility that terrorists may instead attempt to place explosives in air cargo. The Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Act, Public Law 110–153) requires the physical screening of all cargo placed on passenger aircraft by August 2010. The TSA has addressed this requirement by developing the Certified Cargo Screening Program (CCSP), an approach that relies heavily on shippers, cargo consolidators, and freight forwarders to carry out much of the operational aspects of screening cargo, often at off-airport sites in conjunction with enhanced supply-chain security measures to prevent tampering with cargo after screening has been conducted. While the TSA maintains that this approach meets the requirements of the legislation, some have argued that the TSA should instead play a more direct role in conducting or overseeing screening operations, and that the screening should take place in closer proximity to locations where cargo is loaded on to passenger airplanes. Owing to the size of

bulk and palletized cargo shipments, EDS has a more limited role in cargo screening, particularly at airport locations, and solutions are focusing on extensive use of ETD and canine explosives detection teams to efficiently screen air cargo for explosives.

The 9/11 Commission (2004) also recommended deploying at least one hardened, blast-resistant, cargo container on every passenger airliner. The 9/11 Act required the DHS to complete an evaluation of its hardened cargo container pilot program and, based on this evaluation, carry out a risk-based deployment of hardened cargo containers for use on commercial flights. Under this provision, the cost of acquiring, maintaining, and replacing hardened containers would be provided for by the DHS. While the pilot program has been completed, the future direction for operational deployment of hardened cargo containers remains uncertain.

In addition to improving the screening of cargo placed on passenger aircraft, regulations have been issued to improve security for all-cargo operations and protect against unauthorized access to large all-cargo aircraft. Under existing cargo security rules, secured areas of airports have been expanded to include cargo operations areas. Background checks and security threat assessments are required for all workers with access to air cargo, including an estimated 51,000 off-airport employees of freight forwarding companies. Also, under these regulations, an industry-wide database of known shippers was established and is maintained by TSA to allow freight forwarders and airlines to vet cargo shipments, allowing only cargo received from established known shippers to travel on passenger airplanes (TSA 2006b).

General Aviation Security

Although aviation security measures have focused primarily on protecting passenger airliners, some experts have raised concerns that terrorists may try to avoid detection by using nonairline general aviation aircraft to carry out a 9/11 style attack, deliver a nuclear or radiological weapon to its target, or to dispense a chemical or biological agent over a populated area or major outdoor event. Securing general aviation operations continues to be a significant challenge because of the diversity of operations, aircraft, and airports. Measures put in place thus far, such as the Airport Watch program and the TSA's general aviation security guidelines (TSA 2004), rely heavily on the vigilance of the pilot community to detect and report suspicious activity.

Flight training providers must verify citizenship and confirm that background checks have been properly completed by the TSA before providing training to foreign nationals (see Title 49, Code of Federal Regulations [CFR] Part 1552). Charter pilots operating aircraft weighing more than 12,500 pounds must pass background checks, and charter operators must implement security programs to protect aircraft from unauthorized access. Passengers flying on very large charter jets must be screened, and charter and private aircraft operators must adhere to special security procedures when operating at commercial passenger airports. All inbound and outbound international flights must

send advance passenger and crew manifest information to U.S. Customs and Border Protection (CBP) which carries out terrorist watchlist checks and targeted screening of these names.

Security-related airspace restrictions affecting general aviation operators are most prevalent in the Washington, DC, area, where the city is encircled by a 15-mile-radius flight-restricted zone (FRZ) in which general aviation operations are significantly limited, and a larger special flight rules area (SFRA) where pilots must strictly adhere to special air traffic control procedures (Title 49 CFR Part 1562). In August 2005, the TSA implemented a security plan permitting a small number of general aviation flights—mostly large charter and corporate operations—to resume at Washington Reagan National Airport (DCA) which is located at the center of the FRZ. Operations at smaller GA airports located within the FRZ are highly restricted, requiring pilots to undergo background checks and adhere to special airspace security protocols. Since 9/11, flight restrictions have also been put in place at various times over New York City, Chicago, and elsewhere. General aviation pilots have been restricted from flying below 18,000 feet over Disney theme parks and over stadiums during major sporting events, and within 10 miles of a site during a presidential visit.

The TSA remains particularly concerned over the security of large general aviation aircraft. In October 2008, the TSA (2008b) proposed a variety of security measures for operators of all large general aviation aircraft, weighing more than 12,500 pounds, including privately owned, fractionally owned, and corporate aircraft. The measures proposed included CHRCs for all flight crew members, terrorist watch-list checks of all passengers, security inspections of aircraft, and biannual security compliance audits. In addition, operators of all aircraft weighing more than 45,500 kg (roughly 100,000 pounds) would be required to screen passengers and their accessible property. Similar security measures are already required for charter operators. General aviation operators and advocacy groups expressed considerable concern over the burden that would be imposed by these proposals. The TSA has since decided to revise its proposal based on additional input from general aviation interests. This, like many other aspects of aviation and airport security, continues to evolve at a rapid pace in response to changes in threats and vulnerabilities and shifting federal policies and strategies.

Conclusion

Although U.S. policies and strategies regarding aviation security continue to evolve, they have been predicated on a risk-based framework. This risk-based approach relies on expert judgment to evaluate the three core components of security risk: perceived threats, system vulnerabilities, and the potential consequences of various attack scenarios. Based on analyses of these risk factors, policies and strategies continue to evolve to allocate limited resources (including funding, personnel, and technology) in a manner that seeks to minimize security risk across the various sectors of the aviation system. As discussed,

these sectors include air cargo operations and general aviation activity in addition to commercial passenger airports and airlines, which remain the primary focus of aviation security policy.

Aviation security relies on a multilayered strategy to protect high-risk components of the air transportation system. For example, commercial airline flights are protected by several layers of security that include passenger prescreening; passenger and baggage screening; and in-flight security measures such as hardened cockpit doors, air marshals, and armed pilots. A multilayered approach is more resilient to potential threats by including complementary security measures which, in combination, significantly reduce the probability that an individual or group could successfully carry out an attack.

Within this risk-based, multilayered framework, aviation security policies and strategies seek to strike a balance between effectively reducing security risk to acceptable levels while minimizing disruptions to air travel and commerce that may arise when various security measures are implemented and while taking appropriate steps to protect the privacy and dignity of the traveling public. Striking an appropriate balance between adequate levels of security and the efficient transportation of passengers and goods through the aviation system remains an ongoing challenge.

See also **Aging Infrastructure; Surveillance—Technological; Supply Chain Security and Terrorism (vol. 1); Patriot Act (vol. 2)**

Further Reading

Elias, Bartholomew, *Airport and Aviation Security: U.S. Policy and Strategy in the Age of Global Terrorism.* Boca Raton, FL: CRC Press, 2010.

FAA, *Draft Regulatory Evaluation, Initial Regulatory Flexibility Determination, Trade Impact Assessment, and Unfunded Mandates Determination: Notice of Proposed Rulemaking, Certification of Screening Companies.* Office of Aviation Policy and Plans, Operations Regulatory Analysis Branch (APO-310), Rulemaking Docket FAA-1999–6673, April 1999.

FAA, Certification of Screening Companies (Proposed Rule). *Federal Register* 65, no. 3 (2000): 560–611.

Fiorino, Frances, A. Compart, and R. Wall, "Technology vs. Terrorism." *Aviation Week and Space Technology* (January 4, 2010): 24–27.

Griffin, Drew, K. Johnston, and T. Schwarzchild, "Sources: Air Marshals Missing From Almost All Flights." *CNN* (March 28, 2010).

Karp, Aaron, "Security in a Post 12/25 World. *Air Transport World* (April 2010): 32–36.

National Research Council, *Assessment of Technologies Deployed to Improve Aviation Security: First Report.* Publication NMAB-482–5. Washington, DC: National Academy Press, 1999.

9/11 Commission [The National Commission on Terrorist Attacks upon the United States], *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States* (authorized edition). New York: Norton, 2004.

Price, Jeffrey, and J. Forrest, *Practical Aviation Security: Predicting and Preventing Future Threats.* Burlington, MA: Butterworth-Heinemann, 2009.

Sparapani, Timothy D., Statement of Timothy D. Sparapani, Legislative Counsel, American Civil Liberties Union (ACLU), Before the Senate Committee on Commerce, Science, and Transportation, Regarding U.S. Transportation Security Administration's Physical Screening of Airline Passengers and Related Cargo Screening. Washington, DC, April 4, 2006.

Sweet, Kathleen, *Aviation and Airport Security: Terrorism and Safety Concerns,* 2d ed. Boca Raton, FL: CRC Press, 2008.

TSA, *Security Guidelines for General Aviation Airports.* Information Publication A-001, May 2004.

TSA, *Recommended Security Guidelines for Airport Planning, Design, and Construction.* Revised June 15, 2006a.

TSA, Air Cargo Security Requirements (Final Rule). *Federal Register,* 71 (2006b): 30477–30517.

TSA, *Myth Buster: TSA's Watchlist Is More Than One Million People Strong.* Washington, DC: Author, 2008a.

TSA, Large Aircraft Security Program, Other Aircraft Operator Security Program, and Airport Operator Security Program (Proposed Rule). *Federal Register* 73 (2008b): 64790–64855.

United States General Accounting Office, *Aviation Security: Terrorist Acts Illustrate Severe Weaknesses in Aviation Security.* Statement of Gerald L. Dillingham, Director, Physical Infrastructure Issues, Before the Subcommittees on Transportation, Senate and House Committees on Appropriations, September 20, 2001. GAO-01–1166T. Washington, DC: Author, 2001.

United States Government Accountability Office, *Aviation Security: Efforts to Validate TSA's Passenger Screening Behavior Detection Program Underway, but Opportunities Exist to Strengthen Validation and Address Operational Challenges.* GAO-10–763. Washington, DC: Author, 2010.

Weinberger, Sharon, "Intent to Deceive?" *Nature* 465 (2010): 412–415.

ANIMALS USED FOR TESTING AND RESEARCH

Robert William Collin

The use of animals for research and testing has been part of science since its inception. The lives of research animals of all kinds were often short and painful. In contrast, animal rights activists contend that the lives of animals should be protected as if they were human. They strongly oppose the pain and suffering and killing of animals.

Animals Used in Testing and Research

Animals are used extensively for food and clothing. They are also used in testing and research. Many researchers are most interested in the impact on human of a given chemical in the air or water. Other researchers are working on vaccines and other public health research. Some animals are used in medical diagnosis, such as seeing if a rabbit died after

injected with the blood of a pregnant woman. Human subject testing is often illegal and considered unethical. Animals are used extensively and successfully in research and testing. Seventy million animals are used in this manner in the United States each year. Organizations using animals include private research institutions, household chemical product and cosmetics companies, government agencies, colleges and universities, and medical centers. Household goods and cosmetics such as lipstick, eye shadow, soap, waxes, and oven cleaner may be tested on animals. Many of these products now advertise that they do not use animals to test their products. These tests on animals are mainly used to test the degree of harmfulness of the ingredients. Animals are generally exposed to the ingredient until about half die in a certain time period. Animals that survive testing may also have to be euthanized. The primary objections to animal testing are as follows:

- It is cruel in that it causes unnecessary pain and suffering.
- It is outdated; there are more humane modern methods.
- It is not required by law.

Manufacturers justify the use of animal testing to make sure none of the ingredients in their products can pose human risks. By using mammals for their tests, manufacturers are using some of the best tests available. They also claim that the law and regulation almost require them to use animal testing. This is a point of controversy. According to the law, the Food and Drug Administration (FDA) requires only that each ingredient in a cosmetics product be "adequately substantiated for safety" prior to marketing. If it cannot be substantiated for safety then the product must have some type of warning. Furthermore,

- The FDA does not have the authority to require any particular product test.
- Testing methods are determined by the cosmetics and household product manufacturers.
- The test results are mainly used to defend these companies against consumer lawsuits.

Part of this controversy is the issue of humane alternatives, alternatives that do not use animals for testing or research. Animal rights advocates contend that humane alternatives are more reliable and less expensive than animal tests. Computer modeling and use of animal parts instead of live animals are the main humane alternatives. One controversial test uses the eyes of rabbits. The eyes of rabbits are very sensitive to their surroundings. Some Flemish hares (rabbits) were used in the storage silos of Umatilla's biochemical weapon storage facility. If nerve gas was escaping, the eyes of the Flemish hares would dilate. One test involving rabbits' eyes could be replaced by a nonanimal test. The Draize Eye Test uses live rabbits to measure how much a chemical irritates the

eye. Instead of using live rabbits for this test, eye banks or computer models can be used to accurately test the irritancy level of a given chemical. However, researchers contest the reliability and cost of these alternatives.

Other alternatives to using animals for research and testing include

- Chemical assay tests
- Tissue culture systems
- Cell and organ cultures
- Cloned human skin cells
- Human skin patches
- Computer and mathematical models

Animal Testing Proponents

Today, scientists are using animal research to

- Study factors that affect transmission of avian flu between birds as well as the genetic and molecular adaptation from wild birds to domestic poultry
- Evaluate whether ducks in Asia are infection reservoirs sustaining the existence of the H5N1 virus
- Develop new and evaluate existing techniques to predict which mild forms of the avian flu virus might transform into more deadly forms
- Develop improved vaccines against avian flu for birds and evaluate vaccines for human use

Heightened animal research is necessary to combat avian flu and other new and emerging animal-borne diseases such as mad cow disease (bovine spongiform encephalopathy [BSE]), SARS, and West Nile virus. Scientists point out that about three-quarters of animal diseases can infect humans. Some call for more collaboration between animal health and public health organizations. Animal research and testing will be required for this collaboration.

Research and Testing of Animals to Achieve Public Health Victories

Major advances in U.S. public health that have increased longevity and the quality of human life were based on research using animals. The decline in U.S. death rates from cardiovascular diseases, infections, and most kinds of cancer since the 1960s is the result of new methods of treatment based on research requiring animals. Researchers claim that others do not understand the long-term results of such research and how it is conducted. Researchers also claim that others do not recognize important differences between using animals for product testing and for biomedical research. Biomedical research is more justified because of the public health benefits to society,

NUMBER OF ANIMALS USED

Information from regulated research facilities establishes some baseline data about the kinds and numbers of animals used in testing and research. Statistics from the Animal Research Database show how animals are used for testing and research.

- There are approximately 56 to 100 million cats and 54 million dogs in the United States.
- It is estimated that every hour 2,000 cats and 3,500 dogs are born.
- Between 10.1 and 16. 7 million dogs and cats are put to death in pounds and shelters annually.
- Approximately 17 to 22 million animals are used in research each year.
- Approximately 5 billion are consumed for food annually.
- Approximately 1.1 percent of dogs and cats from pounds and shelters that would otherwise be euthanized are used in research.
- Fewer than one dog or cat is used for research for every 50 destroyed by animal pounds.
- Rats, mice, and other rodents make up 85 to 90 percent of all research animals.
- Only 1 to 1.5 percent of research animals are dogs and cats.
- Only 0.5 percent are nonhuman primates.
- There has been a 40 percent decrease in the numbers of animals used in biomedical research and testing in the United States since 1968.

Other federal agencies have studied standards of animal care in testing and research. One of them is the United States Department of Agriculture (USDA). According to the USDA, approximately:

- Some 61 percent of animals used suffer no pain.
- About 31 percent have pain relieved with anesthesia.
- Approximately 6 percent experience pain because alleviation would compromise the validity of the data. Much of this work is directed at an understanding of pain.

These figures apply only to those animals covered by the Animal Welfare Act, which currently excludes rats, mice, farm animals, and cold-blooded animals. Some of these are used extensively in animal research.

There are continuing concerns that this reporting underestimates the extent of mortality and suffering.

while product testing is to increase the product safety to the consumer and profit of a manufacturer.

All researchers and research facilities are not the same. Some research sponsors are also concerned about the use of animals in testing and research. There are ways to encourage whenever possible the use of alternatives to live animal testing. The American Heart Association (AHA) sponsors important heart-related research. They have specific

guidelines about how research animals are to be used and treated. First, the researcher must demonstrate that the animals are needed, and that there are no viable substitutes for the animal. Second, when animals are needed for association-funded experiments, the animals must be handled responsibly and humanely. Before being approved for Association support, the researchers must show that:

- They have looked at alternative methods to using animals.
- Their research cannot be successfully conducted without the use of animals.
- Their experiments are designed to produce needed results and information.

Together with other responsible and committed research-sponsoring organizations, the AHA hopes to ensure that the use of animals for testing and research will occur more carefully. Many universities have developed ethical guidelines for the use of animals in their research programs.

Not all animal testing occurs in these types of organizations. It is still much more expensive to develop new and untested alternatives than to treat some animals as expendable. A given method of drug testing may be more humane to the animals but less effective as a predictor of the drug's impact on humans.

The Animal Welfare Act of 1966

The main law is the Animal Welfare Act (AWA) of 1966. As such it has been a flash point of controversy for animal rights activists. The AWA is the minimum acceptable standard in most U.S. animal rights legislation. Its original intent was to regulate the care and use of animals, mainly dogs, cats, and primates, in the laboratory to prevent abuse. Now it is the only federal law in the United States that regulates the treatment of animals in research, exhibition, transport, and by dealers. In 1992 a law was passed to protect animal breeders from ecoterrorists. Other laws may include additional species coverage or specifications for animal care and use. Some state and cities have some laws that could be argued to protect against animals' use in research and testing, primarily animal abuse laws. They usually require a cooperative district attorney to file and pursue criminal charges. Because there are so many other types of animal abuse crimes than testing and research the prosecutorial discretion to investigate and enforce abuse laws puts testing and research animal abuse as a low priority.

The AWA is enforced through a federal agency with the usual enforcement powers of investigation, searches, and fines or penalties.

The AWA is enforced by the U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) and Animal Care (AC). There is an extensive set of rules and regulations in place. The regulations are divided into four sections: definitions, regulations, standards, and rules of practice.

The definitions section describes exactly what is meant by terms used in the AWA. This section is very important as the legal definition of animal is different than its

generally understood meaning. For example, the term *animal* in the act specifically excludes rats of the genus *Rattus* and mice of the genus *Mus* as well as birds used in research. There are many such exemptions in the AWA. These exemptions are controversial among animal rights activists because they consider the exemptions as contrary to the intent of the act. The regulations section of the AWA is quite specific. As noted on the USDA's Web site (USDA 2009), the regulations methodically list subparts for licensing, registration, research facilities, attending veterinarians and adequate veterinary care, stolen animals, records, compliance with standards and holding periods, and other topics such as confiscation and destruction of animals and access to and inspection of records and property. Monitoring these records from large research facilities, both those in compliance and those out of compliance, allowed the USDA to collect large amounts of information. The actual standards for treatment of animals by species are in the next section. Most of the subchapter is the third section that provides standards for specific species or groups of species. Included are sections for cats and dogs, guinea pigs and hamsters, rabbits, nonhuman primates, marine mammals, and the general category of "other warm-blooded animals." Standards include those for facilities and operations, health and husbandry systems, and transportation. This section is the one animal rights advocates most often seek to have enforced. If the animal rights advocates seek legal redress, they must first exhaust their administrative remedies before a court will accept jurisdiction. Their first step in seeking legal redress, generally for the enforcement of the above conditions, is the focal point of the final section of the act. The final section lists the rules of practice applicable to adjudicating administrative proceedings under the AWA. After exhausting administrative remedies under the act, animals rights activists can then go to court. One problem with the administrative agency issue is that it is very time consuming. The administrative agency, a potential defendant, controls the process and hearings format. Many public interest groups feel this is an unfair requirement because it drains the resources of the nonprofit organization before the issue can be resolved.

Animal Care: What Is Humane?

While there may be agreement that inhumane treatment to animals should be regulated, there is more controversy about what specifically is humane treatment. It is generally tied to the activity around the animal. Again, according to the USDA Web site (USDA 2009), the AWA requires that minimum standards of care and treatment be provided for certain animals bred for commercial sale, used in research, transported commercially, or exhibited to the public. People who operate facilities in these categories must provide their animals with adequate care and treatment in the areas of housing, handling, sanitation, nutrition, water, veterinary care, and protection from extreme weather and temperatures. Although these federal requirements do establish a floor of acceptable standards, there is controversy about whether they go far enough. There is also

controversy about how well enforced the existing law is under the present circumstances. Regulated businesses are encouraged to exceed the specified minimum standards under the AWA. Some animals are bought and sold from unregulated sources for testing and research, and this remains a concern.

Exemptions

The AWA regulates the care and treatment of warm-blooded animals with some major exceptions, also known as exemptions. As older legislation from the 1960s, such as the AWA, passes through subsequent Congresses, exemptions or categorical exclusions are legislatively added to accommodate powerful interests and changes in public policy. Farm animals used for food, clothing, or other farm purposes are exempt. This is a large exemption representing powerful industrial agricultural interests. If they were included, argue these interest groups, the costs of production would increase the cost of food and clothing. Cold-blooded animals are exempt from coverage under the act, but some advocates are seeking to have them covered. The use of frogs for science courses is traditional. Many cold-blooded animals are used for training, testing, and research. Retail pet shops are another major exemption if they sell a regular pet to a private citizen. They are covered if they sell exotic or zoo animals or sell animals to regulated businesses. Animal shelters and pounds are regulated if they sell dogs or cats to dealers, but not if they sell them to anyone else. The last big exemption is pets owned by members of the public. However, no one is exempt from criminal prosecutions for animal abuse under state and local laws.

Pet Protection from Animal Testing and Research

Selling stolen or lost pets for research and testing is another aspect of this controversy. To help prevent trade in lost or stolen animals, regulated businesses are required to keep accurate records of their commercial transactions. Animal dealers must hold the animals that they buy for 5 to 10 days. This is to verify their origin and allow pet owners an opportunity to locate a missing pet. This also helps suppress the illegal trade in stolen animals for testing and research. Many pets are lost when a natural disaster occurs. Floods, storms, hurricanes, emergency vehicles, and threatening interruptions of food and shelter cause many pets to get lost. Some pets now have a computer chip implanted in them for tracking purposes. Critics point out that many commercial transactions about animals used in testing and research do not always happen with regulated businesses. The legal definition of regulated research facilities specifically includes hospitals, colleges and universities, diagnostic laboratories, and cosmetic, pharmaceutical, and biotechnology industries. Animal dealers complain about the cost of holding animals that long and the other costs of verifying ownership. Many animal shelters operate on a small budget and must euthanize animals to make room for new arrivals faster than the holding period

allows. Rigorous enforcement against these groups could put them out of operation, with the net result of no shelter provision or adoption site for animals.

Humane Standards in Research Facilities

Much of the regulation of animal use in testing and research occurs in research facilities. The standards are slightly higher for dogs and primates. All warm-blooded animals, with some major exemptions, get some veterinary care and animal husbandry. This means that a licensed veterinarian examines the health of the animal, and the animal is kept in a clean, sanitary, and comfortable condition. Some animals require a higher standard of care by law. Regulated research facilities must provide dogs with the opportunity for exercise and promote the psychological well-being of primates used in laboratories. According to the USDA's Web site (USDA 2009) researchers must also give regulated animals anesthesia or pain-relieving medication to minimize the pain or distress caused by research if the experiment allows. Regulated entities do express some concern about the cost of these additional procedures. The AWA also prohibits the unnecessary repetition of a specific experiment using regulated animals. The regulated entity itself determines how much repetition is unnecessary. One tenet of science is the ability to repeat a given chain of events, such as corneal exposure to a chemical, and get the same result, such as death or blindness. By prohibiting the repetition of the animal-based tests, some of the results may be weaker. The public protection from a chemical may be weaker, and the industry may be exposed to a large class-action negligence suit. Therefore, research procedures or experimentation are exempt from interference when designated as such. This is a large exemption in an area where animals are thought to suffer pain, and where substitutes or alternatives to animals are not used frequently. This is a continuing battleground in this controversy.

AWA has strict monitoring and record-keeping requirements. The lack of records has been a controversy in the past. By keeping records, information about animals used in testing and research can be gathered. The problem was how to require the regulated entity to comply with the AWA and produce necessary records. The solution in this case was to require a committee at the regulated entity and mandate its membership. The law requires research facilities to form an "institutional animal care and use committee." The purpose of this committee is to establish some place of organizational accountability for the condition of animals at a given research institution. They are primarily responsible for managing aspects of the AWA, especially in regard to the use of animals in experiments. This committee is the point of contact responsible for ensuring that the facility remains in compliance with the AWA and for providing documentation of all areas of animal care. By law, the committee must be composed of at least three members, including one veterinarian and one person who is not associated with the facility in any way.

ANIMAL RIGHTS GROUP CONVICTED OF INCITING VIOLENCE AND STALKING

Those opposed to animal testing have sometimes used violence to make their point, which further inflames this controversy. Criminal prosecution is also a part of it, especially with focused legislation. This, in turn, makes courts one of the battlegrounds.

On March 9, 2006, members of an animal rights group were convicted of two sets of criminal acts. The first was conspiracy to violate the Animal Enterprise Protection Act and the second was interstate stalking. This led to a long and controversial federal jury trial in Trenton, New Jersey. The group itself was also convicted. The jury found the group Stop Huntingdon Animal Cruelty (SHAC) and six of its members guilty of inciting violence against people and institutions who did business with Huntingdon Life Sciences (HLS), a British-based research firm that runs an animal testing laboratory in East Millstone, New Jersey.

SHAC targeted HLS, as well as other companies doing business with HLS, because it uses animals to test the safety of drugs and chemicals. SHAC has claimed responsibility for several bombings and dozens of acts of vandalism and harassment in both the United States and Europe to protest the use of animals in research and testing. Its campaign against HLS has become an international cause among animal rights activists since the late 1990s.

The six defendants—former SHAC spokesperson Kevin Kjonaas; Lauren Gazzola, whom the indictment identified as SHAC's campaign coordinator; Andrew Stepanian, a longtime activist with SHAC and the Animal Defense League; Joshua Harper a self-described anarchist and SHAC activist; and SHAC members Jacob Conroy and Darius Fullmer—were all found guilty of conspiracy to violate the Animal Enterprise Protection Act.

Kjonaas, Gazzola, and Conroy were also found guilty of multiple counts of interstate stalking and conspiracy to engage in interstate stalking. In addition, Kjonaas, Gazzola, and Harper were found guilty of conspiracy to violate a telephone harassment act.

The defendants were arrested in May 2004 by federal agents in New York, New Jersey, California, and Washington. They face three to seven years in prison and fines of up to $250,000. They may also face judgments in civil trials from victims.

The defendants were convicted of conducting a very personal, no-holds-barred campaign of terror against HLS employees and their children. During the three-week trial, prosecutors showed how SHAC's campaign against HLS involved posting personal information on the Internet about its employees and about employees of firms that do business with HLS. The information posted on the Internet included phone numbers, home addresses, and, in some cases, information on where employees' children attended school. Many of those targeted had their cars and homes physically vandalized and received threats against them or their families, according to court testimony.

According to law enforcement officials, one female employee was sent an e-mail from SHAC threatening to "cut open her seven-year-old son and fill him with poison."

(*continued*)

(*continued*)

The Animal Enterprise Protection Act, signed into law by the first President Bush in 1992, provided animal research facilities with federal protection against violent acts by so-called animal rights extremists. The act gave prosecutors greater powers to prosecute extremists, whose attacks create damages or research losses totaling at least $10,000. Animal enterprise terrorism is defined in the act in part as "physical disruption to the functioning of an animal enterprise by intentionally stealing, damaging, or causing the loss of any property (including animals or records)."

Some critics charged that prosecutors rarely used the Animal Enterprise Protection Act because the penalties were too mild and it was difficult to prove damages of more than $10,000. An antiterrorism bill signed into law by President George W. Bush in 2002 substantially increased the penalties for such actions. Prior to the SHAC trial, there appears to have been only a single successful prosecution under the Animal Enterprise Protection Act. In 1998, a federal grand jury in Wisconsin indicted Peter Daniel Young and Justin Clayton Samuel under its provisions for breaking into several Wisconsin fur farms in 1997 and releasing thousands of animals. Samuel was apprehended in Belgium in 1999 and quickly extradited to the United States. In 2000, Samuel pleaded guilty and was sentenced to two years in prison and ordered to pay over $360,000 in restitution. Young was a fugitive until arrested in March 2005 in San Jose for shoplifting. He was later sentenced to two years in prison.

While there are controversial questions about the enforcement of the Animal Welfare Act, there is little question about the rigorousness of enforcement against those who commit terrorist acts of protest to free animals used for fur, testing, and research.

Conclusion

The controversy around the use of animals for testing will continue because animals will continue to be used for testing. Animal rights groups assert that enforcement of a weak law riddled with exemptions is inadequate and that animals are being abused. One environmental impact of a poorly regulated animal trade is the importation of endangered species under conditions of high mortality. Testing on animals, unlike dogfighting, is done at large institutions often receiving federal research grants. Many of these are universities. When human health considerations are thrown into the equation, animal testing is often justified by researchers despite animal mortality.

See also **Endangered Species; Epidemics and Pandemics; Vaccines**

Further Reading

Bekoff, Marc, ed., *Encyclopedia of Animal Rights and Animal Welfare,* 2d ed. Santa Barbara, CA: Greenwood Press, 2009.

Botzler, Richard George, *The Animal Ethics Reader.* London: Routledge, 2003.

Carbone, Larry, *What Animals Want: Expertise and Advocacy in Laboratory Animal Welfare Policy.* New York: Oxford University Press, 2004.

Garner, Robert, *Animals, Politics, and Morality.* Manchester, UK: Manchester University Press, 2004.

Gluck, John P., Tony DiPasquale, and Barbara F. Orlans, *Applied Ethics in Animal Research: Philosophy, Regulation and Laboratory Applications.* Ames, IA: Purdue University Press, 2002.

Moran, Lisa C., *Science, Medicine, and Animals.* Washington, DC: National Academies Press, 2005.

Regan, Tom, *Defending Animal Rights.* Chicago: University of Illinois Press, 2001.

Rudacille, Deborah, *The Scalpel and the Butterfly: The Conflict between Animal Research and Animal Protection,* Berkeley: University of California Press, 2001.

USDA, "Questions and Answers about the Animal Welfare Act." 2009. http://www.nal.usda.gov/awic/pubs/Legislat/regsqa.shtml

AUTOMOBILE ENERGY EFFICIENCIES

Robert William Collin and Debra Ann Schwartz

Emissions from cars and trucks are central to debates about air pollution and how much of such pollution poses an acceptable risk. The first federal clean air laws were passed in the late 1960s and early 1970s. Pollution-control devices and lead-free gas have decreased some emissions. The onus is on the automobile industry to produce more efficient cars that use less gas and to decrease the environmental impact of vehicles. Emissions from cars and trucks continue to accumulate in land, air, and water. Increased retail sales of fuel-inefficient sport utility vehicles (SUVs) and light trucks, combined with overall increases in number of vehicles, continues to generate emissions that degrade air quality.

Environmentalists want cars with higher fuel efficiency that produce less pollution. Consumers want inexpensive gas and more cars and trucks to drive. Communities want clean air and have valid public health concerns. The petrochemical industry claims it is moving with deliberate speed to comply with environmental standards, garnering tax breaks and profits along the way. However, the near collapse of General Motors and its recent response—to bring hybrid cars to market—suggests a new commitment to social consciousness and less emphasis on Wall Street and profits. For example, in the past, large, luxurious vans turned the largest profit for General Motors, prompting the company to abandon its Saturn brand in favor of gas guzzlers. Many marketing the GM Saturn initially contended that fuel-efficient cars of this kind represented GM's future. However, when bottom lines did not rise fast enough to satisfy stockholders, GM succumbed to pressure and killed the brand.

Fundamental Conflict: Industry and Government

The battle between the government and industry over legislating the production of more efficient vehicles is a long-standing one. Most of this legislation requires minimal

compliance by industry at some date years in the future. Manufacturers claim that it takes resources from research and development right now to try to change production technologies to meet those standards. Sometimes they get tax breaks and other public policy–based encouragement to do so. One area of contention is the free market. Market demand is for more cars, trucks, airports, and other petrochemical-based activities. Does legislation from democratically elected representatives constitute market demand? Many economists would say that it does not. Environmentalists claim that the minimal requirements are not fast or stringent enough.

In early April 2010, President Barack Obama changed fuel economy standards in the United States. The administration issued final regulations compromising fuel economy standards set in the Clean Air Act requiring fuel efficiency to increase to over 40 miles per gallon (mpg) by 2015 and 55 mpg by 2025. The compromise, which required an increase instead to 35.5 mpg by 2016, was celebrated by the auto industry for creating a unified national program from a patchwork of varying state and federal standards. It prompted the industry to voluntarily dismiss lawsuits challenging California's motor vehicle greenhouse gas emission standards, which were more stringent than federal standards when adopted a few years ago. With the compromise, California amended its regulations to match federal standards. Rising gas prices, the slowly deepening effects of rising gas prices on food and other consumer goods, and concern about air pollution all increased public involvement. In 2005, California and 16 other states sued the EPA for refusing to allow them to raise fuel economy standards beyond federal limits. Federal law can preempt state law.

Adopting fuel-efficient or alternative fuel technologies to meet the Clean Air Act standards would, in theory, save enormous amounts of gas and oil. A series of environmental disasters involving offshore oil drilling and ocean tankers in 2008 and 2009 may have pushed attention in the direction of acceptance. The sinking of the BP–Deepwater Horizon oil rig in the Gulf of Mexico near Louisiana in April 2010 caused the Obama administration to halt its plans to expand offshore drilling pending further investigation. A major controversy over alternative fuel solutions is whether they would prevent further environmental degradation. Global warming controversies are also pushing this issue into the public view. Some contend the United States needs to do more in terms of addressing mobile emissions sources and their environmental impacts. The exploration of alternative fuels for vehicles can be controversial in terms of environmental impacts. The removal of lead from U.S. gasoline was a major step forward, not yet replicated around the world. It greatly reduced airborne lead emissions. However, with current standards and the volume of driving, assuming complete environmental compliance, U.S. vehicles would still emit 500,000 tons of smog-forming pollution every year.

The United States is among the leading nations for both pollution and pollution-control technology. Diesel-powered vehicles are major polluters. They emit almost 50 percent of all nitrogen oxides and more than two thirds of all particulate matter

(soot) produced by U.S. transportation. Because the United States is more reliant on trucks (which tend to be diesel-fueled) for the shipment of goods and raw materials than other nations, diesel emissions can be large contributors to an air stream, along with many other pollutants. Some of these regulated pollutants are from industry and some from the environment.

The scale of diesel usage and its known emissions make it an environmental issue. Nitrogen oxides are powerful ingredients of acid rain. Acid rain can cause nitrogen saturation in crops and wilderness areas. Soot, regulated as particulate matter, irritates the eyes and nose and aggravates respiratory problems including asthma. Urban areas are often heavily exposed to diesel fumes. While diesel is a polluting fuel, regular unleaded gasoline can also pollute. Overall, the environmental impacts of the combustion engine remain largely undisputed. What is disputed is whether the environmental regulations go far enough to mitigate environmental impacts from these sources. The controversy about automobile energy efficiencies opens this aspect of the debate.

Commercial hybrid electric vehicle (HEV) models use both batteries and fuel. In the past few years they have been produced and marketed to the public. More recently, HEV drive trains have been used successfully in heavy-duty trucks, buses, and military vehicles.

Researchers also want to move HEV technology into a more sustainable lifestyle. They would like to produce and market plug-in hybrids that can plug in to household outlets. They want them to be able to store electricity and operate as clean, low-cost, low-environmental-impact vehicles for most of their normal daily mileage. Right now electric cars are limited by their batteries. Combining engines with them and using braking power to recharge the batteries does extend their range and power but also increases their emissions. Transportation is conceptualized as part of a environmental low impact and sustainable lifestyle. These communities unite plug-in hybrids, other low-impact transportation alternatives (bicycles, mass transit stops), zero-energy homes, a range of renewable energy technologies, and sustainable environmental practices. One example of such a community is the Pringle Creek Community in Salem, Oregon.

Hybrid Electric Vehicles

Hybrid electric vehicles, also known as HEVs, are an old idea renewed. In the early 1900s electric cars were popular for their quiet, but did not move as fast as gasoline-driven cars. Present-day hybrids combine both technologies: internal combustion engines and electric motors. The source of the fuel and the electricity may differ from model to model.

The biggest challenge plug-in hybrids face is that even the most rechargeable batteries lose the ability to hold a charge. They then become hazardous waste, There is also a financial and environmental cost to the use of electrical power. Much electrical power in the United States comes from coal-fired power plants. Companies such as Massy Coal are engaged in mountaintop removal practices to separate veins of coal from other rock.

That process involves blowing off the top peaks of mountains and using chemicals such as arsenic and stricnine to loosen the coal. The process creates sludge laced with poison. It is filling rivers and lakes throughout Appalachia, where a large percentage of coal is mined in the United States. That is one environmental impact of using coal-fired electricity. Solar-powered batteries do not represent the same problem.

It is possible to recharge plug-in hybrid vehicles from renewable energy sources. Scientists are extensively researching thermal management, modeling, and systems solutions for energy storage. Scientists and engineers also are researching ways to increase the efficiency of the electrical power.

In addition, researchers seek to make the plug-in electric car reversible. In many areas homes and businesses can sell back energy they do not use or that they create. This is one way to protect the electric grid from brownouts, as well as conserve energy from nonrenewable resources. In hybrid vehicles it is called a vehicle-to-grid or V2G. These cars would have a two-way plug that allows the home and vehicle owner and local utility to exchange power back and forth. This could make the batteries accessible backup power in the event of a natural disaster or other power outage. It could also encourage citizens to buy new hybrid cars. Utilities pay for peak, backup, and unused power. Transportation analysts can quantify the potential value of such systems in terms of gas saved, air quality, and other measures. There could be substantial automobile energy efficiencies in these approaches, but many remain untried at a large level. Reversible electrical energy may not be much less environmentally harmful if the source of the electric power and the waste generated have harmful environmental impacts.

Fuel-Cell Vehicles

As research and conceptualization has moved HEVs into production, fuel-cell technology is taking shape. Hydrogen fuel cells have long been used to generate electricity in spacecraft and in stationary applications such as emergency power generators. Fuel cells produce electricity through a chemical reaction between hydrogen and oxygen and produce no harmful emissions. In fuel-cell vehicles (FCVs), hydrogen may be stored as a pressurized gas in on-board fuel tanks. The electricity feeds a storage battery (as in today's hybrids) that energizes a vehicle's electric motor.

An FCV may be thought of as a type of hybrid because its electric battery is charged by a separate on-board system. This underscores the importance of advancing present-day HEV technologies. HEVs help reduce petroleum consumption immediately and provide lessons about batteries, energy storage, fuel advancements, and complex electronic controls that may apply directly to future transportation technologies.

What Is Biodiesel?

Biodiesel is a catchall term used to describe fuel made from vegetable oil or animal fats. These fats are generally converted to usable fuel by a process called *transesterification.*

Biodiesel fuels are usually mixed with conventional diesel. It is estimated that 140 billion gallons of biodiesel could replace all oil used for transportation in the United States. This is an enormous amount of biodiesel, which is creating controversy and innovation in the sources of biodiesel. Large-volume biodiesel use could raise concerns about land-use impacts common to all plant-based fuels. Are there enough plants, such as corn, to meet the fuel needs? Land-use impacts could be much larger if the market demand is driven by fuel needs. Alternative energy sources almost always include renewable energy sources such as solar power. Because most biodiesel is made from plant-based oils or waste-stream sources, it is a renewable fuel. Would there be enough of it?

Waste vegetable and animal fat resources are estimated to be able to produce a billion gallons of biodiesel per year. That prediction is considered speculative by some because it assumes adequate plant and waste production. Collecting the wastes, distilling and cleaning the fat from them, and using the resulting product as fuel can have environmental impacts. Farmers and proponents of biodiesel claim that distribution costs should go down as the first biodiesel stations begin operations and the price of petrochemicals increases. Use of more than a billion gallons per year of biodiesel would require more virgin plant oils and crops for biodiesel production. It would also require the discovery and organization of other waste-stream sources to meet larger demands. More land would be needed to plant necessary crops, such as corn. Crops grown for biodiesel can be grown in a manner that has negative environmental consequences for entire ecosystems. Just as in the case of other crops, they can require pesticides and may be genetically manipulated.

Biodiesel and Global Climate Change

One of the environmental advantages touted with biodiesel is that it has fewer environmentally degrading emissions. Critics have pointed out that biodiesel vehicles require more fuel depending on the mix and may have overall more combustion. Some biodiesel requires chemicals to start up when it is cold. Sometimes the vehicle must warm up to get the grease warm enough to flow. Pure 100 percent biodiesel results in large reductions in sulfur dioxide. However, it can cause 10 percent increases in nitrogen oxide emissions. A popular mix of biodiesel is about 80 percent biodiesel and 20 percent regular diesel, which increases the pollutants emitted proportionally. These pollutants are responsible for acid rain and urban smog. Biodiesel companies are beginning to operate service stations to distribute the fuel. There is controversy about its environmental impacts. Some tailpipe emissions are reduced. However, when the entire life of the vehicle is considered, running on 100 percent biodiesel, some smog-forming emissions can be 35 percent higher than those from conventional diesel.

Are There Other Environmental Attributes of Biodiesel?

One big concern and source of controversy are oil spills and their environmental impacts. Regular petrochemical spills can travel quickly in water and permeate land, depending

ALTERNATIVE FUELS, ETHANOL, AND CORN: POTENTIAL ENVIRONMENTAL IMPACTS

With the rapid increase in demand for ethanol, more corn is being planted in the United States. Ethanol is made from corn. The problem with growing large amounts of corn is the environmental impact. One large concern is the amount of water required for its production. A gallon of ethanol requires about three gallons of water to produce. In locations without reliable water sources it may not be a cost-efficient alternative fuel. Corn requires about 156 pounds of nitrogen, 80 pounds of phosphorus, and differing amounts of pesticides per acre to grow from seed to harvest. Corn requires large amounts of nitrogen because it cannot absorb it from the air. What the corn does not absorb runs off the land into the water table. This causes algae blooms that warm up the water and use up the oxygen, sometimes resulting in large fish kills. Nitrates in the water, largely from agricultural runoff, are also blamed for deaths of livestock, and some suspect them to have played a role in human fatalities. Algae growth can cause other bacteria to grow that are harmful to humans.

Many corn farmers use sophisticated satellite tracking measurements to make sure fertilizer levels are not exceeded. Many keep records of inventory as a condition of bank loans and can keep track of fertilizer expenses. More and more farmers are planting buffer strips between their fields and waterways. These buffer strips are areas of vegetation, usually indigenous, that filter water or runoff from fertilized fields. It is difficult for farmers to leave a buffer strip. Usually the soil near the water is better. Buffer strips can attract animals that dig holes in the fields and destroy crops. Not all farmers are owner–operators. Many commercial agribusinesses lease land to farm. Although their leases often make allowances for buffers and land held in soil and water conservation programs, they are seldom enforced.

on soil structure. Biodiesel is considered less harmful to the environment because it biodegrades four times faster than conventional diesel, so its environmental impacts are not as long-term or ecologically pervasive. It quickly degrades into organic components. Production of petroleum diesel creates much more hazardous waste than production of biodiesel. Biodiesel produces more overall waste depending on the source but generally twice as much as nonhazardous waste. Some of the nonhazardous wastes may be recyclable.

One developing source for biodiesel is algae, grown specifically for this purpose. The specialized algae are grown in a variety of ways. They are vastly easier to grow than most other crops and grow very quickly. While growing, they absorb large amounts of carbon dioxide, a greenhouse gas. Technological entrepreneurship is very much engaged in this, and algae strains are sometimes protected trade secrets. The species used now in the United States is *Botryococcus braunii* because it stores fat that is later used as fuel. The algae must then be broken down to separate fats from sugars. Solvents are used for

this, which could be a source of environmental impacts depending on by-products and manufacturing waste streams. Fats cannot be cold pressed out of algae because they are too fragile and disintegrate. The fats are made into biodiesel. One issue is whether they could produce enough to meet demand for biodiesel from vehicles. Aquaflow, a New Zealand algae fuel company, says that it has achieved this.

Oil and Power: Impacts on Automobile Energy Efficiency

The primary resistance to increasing the efficiency of automobile and truck engines is the petrochemical industrial complex. Large oil companies are the backbone of U.S. industry and part of a thriving economy. They are multinational corporations that exert political power here and abroad. Some have revenues larger than those of most nations. Their only legal motivation is to make profit from dispensing a limited natural resource. Environmental and ecological integrity and consumer quality-of-life issues are not their concern. The oil industry has been a strong industrial stakeholder and exerted power at the local, state, and federal levels of government for almost a century. Many state legislatures have passed laws exempting oil companies from releasing their environmental audits or helping oil companies avoid compliance with environmental regulation or enforcement action. Oil companies are not responsive to community concerns and can litigate any issue with vast financial resources. The petrochemical industrial complex has also become part of social institutions such as foundations, churches, schools and universities, and athletic contests. Some employment opportunities, some infrastructure, and the hope of more economic development are offered to communities by oil companies.

Oil politics and the U.S. presidency are closely intertwined as both Bush presidents were major players in the oil industry in Texas and internationally with Saudi Arabia. Since George W. Bush was elected president in 2001, the top five oil companies in the United States have recorded record profits of $342.4 billion through the first quarter of 2006, while at the same time getting substantial tax breaks from a Republican Congress. This is extremely controversial, as gas prices have risen dramatically for most average citizens, and the national debt has gone from a surplus to a large deficit. With the controversial war in Iraq, an oil-producing nation, some people in the United States thought gas prices would decrease domestically. (They did not.) Oil company profit taking during times of natural disaster, such as hurricane Katrina, and war, has attracted much congressional attention. In one congressional hearing in 2006, major oil executives were subpoenaed to testify before Congress and refused to swear to tell the truth.

No oil company seems to be turning their profits into consumer savings. Some are just starting to research more alternative energy sources, but this is controversial. Some environmental groups have recently challenged this assertion. To many U.S. consumers it seems there is a direct correlation between record prices paid by consumers and record profits enjoyed by oil companies. From 1999 to 2004, the profit margin by U.S. oil refiners has increased 79 percent.

Political Controversy: Tax Breaks for Oil Campaign Contributions?

The search for automobile energy efficiency lies in the political maelstrom of the oil industry in Congress. President George W. Bush and the Republican Congress gave $6 billion in tax breaks and subsidies to oil companies in 2006 alone. This is in the face of large oil company profits. From 2001 to 2006 the oil industry gave $58 million in campaign contributions to federal politicians. Eighty-one percent of that went to Republicans. Given the awkward state of campaign financing, it is likely that these numbers would be much higher if travel and other expenses were included. Environmental groups, concerned communities, and taxpaying consumers have all protested this as corruption, misfeasance, and malfeasance in office.

Conclusion

Continued dependence on fossil fuels guarantees increased controversy. As oil becomes depleted, multinational oil corporations exert all their huge influence on the United States to protect their sources, even if it means going to war. The dissatisfaction of environmentalists and communities with the petrochemical industrial complex, the dependence and demand of the United States for oil, the lack of governmental support for alternative energy development, and the inability to keep large environmental impacts secret all fuel this raging controversy.

See also **Air Pollution; Biodiesel; Climate Change; Cumulative Emissions; Fossil Fuels; Global Warming; Oil Economics and Business (vol. 1)**

Further Reading

Clifford, Mary, *Environmental Crime: Enforcement, Policy and Social Responsibility.* Sudbury, MA: Jones and Bartlett, 1998.

Dobson, Andrew P., *Citizenship and the Environment*. New York: Oxford University Press, 2004.

Fuhs, Allen, *Hybrid Vehicles and the Future of Personal Transportation*. Boca Raton, FL: CRC Press, 2009.

Galambos, Louis, Takashi Hikino, and Vera Zamagni, *The Global Chemical Industry in the Age of the Petrochemical Revolution*. Cambridge, UK: Cambridge University Press, 2006.

Marzotto, Toni, Vicky Moshier, and Gordon Scott Bonham, *The Evolution of Public Policy: Cars and the Environment.* Boulder, CO: Lynne Rienner, 2000.

Miller, Norman, ed., *Cases in Environmental Politics: Stakeholders, Interests, and Policymakers*. New York: Routledge, 2009.

National Renewable Energy Laboratory, "Advanced Vehicles and Fuels Research." www.nrel.gov/vehiclesandfuels

Wells, Peter E., and Paul Nieuwenhuis, *The Automotive Industry and the Environment: A Technical, Business and Social Future.* Boca Raton, FL: CRC Press, 2003.

B

BIODIESEL

Sarah Lewison

Biodiesel, a diesel substitute made from biological materials, can be used directly in a diesel engine without clogging fuel injectors. It is the product of a chemical process that removes the sticky glycerins from vegetable and animal oils. Because it is made from biomass, biodiesel is considered to be a "carbon neutral" fuel. When burned, it releases the same volume of carbons into the atmosphere that were absorbed when the biomass source was growing. Controversy exists, however, in particular over the use of high-quality grains for biodiesel, because land is taken out of food production and devoted to the production of fuel.

Characteristics and Applications

In comparison with diesel, biodiesel has reduced particulate, nitrous oxide, and other emissions and emits no sulfur. Biodiesel is used as a transportation fuel substitute, either at the rate of 100 percent or in smaller percentages mixed with diesel. It mixes completely with petroleum diesel and can be stored safely for long periods of time. Biodiesel is biodegradable and does not contain residuals that are toxic to life forms. It has a higher flash point than diesel and is safer to ship and store. Biodiesel is mixed with kerosene (#1 diesel) to heat homes in New England. It has been used as an additive in aircraft fuel, and because of its oil-dissolving properties, is effective as a nontoxic, biodegradable solvent that can be used to clean oil spills and remove graffiti, adhesive, asphalt, and paint; as a hand cleaner; and as a substitute for many other petroleum-derived industrial

solvents. Biodiesel is appropriate as a renewable alternative to petrochemical diesel because it can be produced domestically, lowers emissions, and does not cause a net gain in atmospheric carbon. The overall ecological benefits of biodiesel however, depend on what kinds of oils are used to make it.

Biodiesel is made from the oils in seeds, nuts, and grains or animal fats. Oil sources for biodiesel production are called biomass "feedstock." Agricultural crops are specifically grown to be utilized for biodiesel production. The crops vary according to region and climate; in the northern hemisphere, biodiesel is most often made from soybean, sunflower, corn, mustard, cottonseed, rapeseed (also known as canola), and occasionally, hempseed. In tropical and subtropical regions, biodiesel is made from palm and coconut oils. Experiments have been conducted in extracting oils from microorganisms such as algae to produce the fuel. These algae experiments have raised hopes of converting sunlight more directly into a renewable fuel to be used with existing diesel machinery. Biodiesel offers an efficient use for waste oils that have already been used for frying or otherwise manufacturing food for human consumption. Waste grease biodiesel is made from the oils left over in the fryer and the grease trap as well as from the animal fats and trims left over from the butchering process.

The fuel is manufactured from both fresh and waste oils in the same way, through a chemical reaction called transesterification, which involves the breaking up, or "cracking," of triglycerides (fat/oil) with a catalytic agent (sodium methoxide) into constituent mono-alkyl esters (biodiesel) and raw glycerin. In this process, alcohol is used to react with the fatty acids to form the biodiesel. For the triglycerides to react with the alcohol, a catalyst is needed to trigger a reorganization of the chemical constituents. Most often, a strong base such as sodium hydroxide (lye, NaOH) is used as a catalyst to trigger the reaction between the triglycerides and the alcohol. Either methanol (CH_3OH, or wood alcohol, derived from wood, coal, or natural gas) or ethanol (C_2H_6O, known as grain alcohol and produced from petrochemicals or grain) is used as the alcohol reactant. The chemical name of the completed biodiesel reflects the alcohol used; methanol makes methyl esters, whereas ethanol will produce ethyl esters. Most frequently, methanol is the alcohol used.

Triglycerides are composed of a glycerin molecule with three long-chain fatty acids attached. The fatty acid chains have different characteristics according to the kind of fat used, and these indicate the acid content of the oil. The acid content must be taken into account in order to get the most complete reaction and thus the highest yield of biodiesel. To calculate the correct proportions of lye and methanol needed to transesterify a sample of oil, the acid content of the oil is measured through a chemical procedure called titration. Waste vegetable oil has higher fatty acid content and requires higher proportions of lye catalyst than fresh oil. The titration results determine the proportion of lye to combine with the methanol or ethanol to form a catalytic agent that will complete the reaction fully.

To make biodiesel, the oil is placed in a noncorrosive vessel with a heating element and a method of agitation. The mixture of lye and alcohol is measured and mixed separately. Usually the amount of methanol or other alcohol needed amounts to 20 percent of the volume of oil. The amount of lye depends on the acidity of the oil and is determined by titration and calculation. When the oil reaches 120 to 30 degrees Fahrenheit (48 to 54 degrees Celsius), the premixed catalytic solution is added. The oil is maintained at the same heat while being gently stirred for the next 30 to 60 minutes. The stirring assists in producing a complete reaction. The mixture is then left to cool and settle; the light yellow methyl esters or ethyl esters float to the top and the viscous brown glycerin sinks to the bottom. The esters (biodiesel) are decanted and washed free of remaining soaps and acids as a final step before being used as fuel.

Although transesterification is the most widely used process for producing biodiesel, more efficient processes for the production of biodiesel are under development. The fuel is most simply made in batches, although industrial engineers have developed ways to make biodiesel with continuous processing for larger-scale operations. Biodiesel production is unique in that it is manufactured on many different scales and by different entities. It is made and marketed by large corporations that have vertically integrated supplies of feedstocks to mesh with production, much the same way petrochemical supplies are controlled and processed. There are also independent biodiesel-production facilities operating on various scales, utilizing local feedstocks, including waste oil sources, and catering to specialty markets such as marine fuels. Many independent engineers and chemists, both professional and amateur, contribute their research into small-scale biodiesel production.

Biodiesel can be made in the backyard if proper precautions are taken. There are several patented and open source designs for biodiesel processors that can be built for little money and with recycled materials. Two popular designs include Mike Pelly's Model A Processor for batches of waste oils from 50 to 400 gallons and the Appleseed Biodiesel Processor designed by Maria "Mark" Alovert. Plans for the Appleseed processor are available free on the Internet, and the unit itself is built from a repurposed hot water heater and valves and pumps obtainable from hardware stores. Such open-source plans and instructions available online have stimulated independent community-based biodiesel research and development. In some cases, a biodiesel processor is built to serve a small group of people who decide to cooperate on production within a region, taking advantage of waste grease from local restaurants. The biodiesel fuel is made locally and consumed locally, thus reducing the expenses of transporting fuel.

The use of vegetable oil in diesel engines goes back to Rudolf Diesel, the engine's inventor. The diesel engine demonstrated on two different occasions in Paris during the expositions of 1900 that it could run on peanut oil. (The use of peanut oil was attributed to the French government, which sought to develop an independent agriculturally

derived power source for electricity and transportation fuel in its peanut-producing African colonies.)

As transportation fuel, biodiesel can be used only in diesel engines in which a fuel and air mixture is compressed under high pressure in a firing chamber. This pressure causes the air in the chamber to superheat to a temperature that ignites the injected fuel, causing the piston to fire. Biodiesel cannot be used in gasoline-powered internal combustion engines. Because its solvent action degrades rubber, older vehicles running biodiesel might need to have some hoses replaced with those made of more resistant materials. The high lubricating capacity of biodiesel has been credited with improving engine wear when blended at a 20 percent rate with petroleum diesel.

Advantages of Biodiesel

The benefits of burning biodiesel correspond to the percentage of biodiesel included in any formulation. The overall energy gains of biodiesel are also assessed according to the gross consumption of energy required to produce the oil processed into fuel. Biodiesel processed from waste grease that has already been utilized for human food consumption has a greater overall energy efficiency and gain than biodiesel produced from oils extracted from a virgin soybean crop grown with petrochemical-based fertilizers on land previously dedicated to food production.

Biodiesel's emissions offer a vast improvement over petroleum-based diesel. Emissions of sulfur oxides and sulfates (the primary components of acid rain) are eliminated. Smog-forming precursors such as nitrogen oxide, unburned hydrocarbons, and particulate matter are mostly reduced, although nitrogen oxide reduction varies from engine to engine. The overall ozone-forming capacity of biodiesel is generally reduced by nearly 50 percent. When burned, biodiesel has a slightly sweet and pleasant smell, in contrast to the acrid black smoke of petroleum-based diesel.

Biodiesel has the additional and important advantage of carbon-neutrality in that it is produced from the energy stored in living organisms that have been harvested within 10 years of the fuel's manufacture. During their growing cycle, plants use carbon dioxide to process and store the energy of the sun in the form of carbon within their mass. When plants are converted to fuel source and burned, they can release into the atmosphere only the amount of carbon consumed and stored (through photosynthesis) during their life cycle. When petroleum fuel is burned, carbons are released into the atmosphere at a much faster rate. The atmospheric release of the fossilized carbons of petroleum fuel places an impossible burden on existing living biomass (trees and plants) to absorb the massive quantities of carbons being released.

The mass production of biodiesel from biomass feedstock grown specifically for fuel has not been proven to produce a net energy gain because of the energy inputs needed in current industrial farming methods. These include the inputs of petroleum-derived fertilizers and herbicides, fuel for farm machinery, and the energy needed to pump water

and transport the fuel. Concerns have also been expressed about taking land and other agricultural resources previously devoted to food production for the production of biomass for fuels such as biodiesel.

See also **Automobile Energy Efficiencies; Fossil Fuels; Global Warming**

Further Reading

Earley, Jane, and Alice McKeown, *Red, White, and Green: Transforming U.S. Biofuels.* Washington, DC: Worldwatch Institute, 2009.

Official Site of the National Biodiesel Board, http://www.biodiesel.org/markets/mar

Pahl, Greg, *Biodiesel: Growing a New Energy Economy,* 2d ed. Burlington, VT: Chelsea Green, 2008.

BIOTECHNOLOGY

Celene Sheppard

Although biotechnology can be defined broadly to include any technological application that uses a biological system or organism, the term has become synonymous with the use of modern technology to alter the genetic material of organisms. The ability to recombine DNA across species has created significant social controversy over the creation of biohazards, "terminator" genes, genetic pollution, "playing God," and the ethics of altering the lives and appearance of animals.

Background and Development

Biotechnology may be considered as any technological application that uses biological systems, living organisms, or their derivatives. The term *biotechnology* covers a broad range of processes and products and can be understood from at least two perspectives. From one perspective, biotechnology (1) is the process of using (bio)organisms to produce goods and services for humans. The use of yeast in the processes of fermentation that make bread and beer and the historical domestication of plants and animals are examples of this kind of biotechnology. From another perspective, biotechnology (2) is the process of using genetic technologies to alter (bio)organisms. This perspective is illustrated by the hybridization of plants, the cloning of sheep, and the creation of genetically engineered food crops. Although both perspectives are debatable endeavors, biotechnology type 2 is inherently more problematic than type 1. Most ethical, moral, and religious criticism of biotechnology focuses on type 2 biotechnology. The United Nations definition, then, focuses on the history and problems associated with type 2 biotechnology.

Biotechnology type 2 began in the late nineteenth century as the rise of the science of genetics established a basis for the systematic and conscious practice of breeding plants and animals. In 1944 Oswald Avery identified DNA as the protein of heredity. In 1953

James Watson and Francis Crick discovered the structure of DNA. Biotechnology blossomed in the late 1960s and early 1970s with the development of recombinant DNA technology and the birth of the biotechnology industry. In 1997 the human genome was mapped and sequenced. Since the 1990s, an increasing number of techniques have been developed for the biotechnological reproduction and transformation of organisms. An examination of controversies associated with biotechnology includes at least the biotechnological modification of microorganisms, of plants, and of animals.

In the early 1970s, researchers across the world began exploring recombinant DNA (rDNA) technology, or the technology of joining DNA from different species. rDNA technology is performed either by a gene-splicing process, wherein DNA from one species is joined and inserted into host cells, or by cloning, wherein genes are cloned from one species and inserted into the cells of another.

In 1972 biochemist Paul Berg designed an experiment allowing him to use rDNA technology to insert mutant genetic material from a monkey virus into a laboratory strain of the *E. coli* bacterium. Berg did not, however, complete the final step of his experiment because he and his fellow researchers feared they would create a biohazard. Because the monkey virus was a known carcinogen and the researchers knew that *E. coli* can inhabit the human intestinal tract, they realized their experiment might create a dangerous, cancer-inducing strain of *E. coli.*

Berg and other leading biological researchers feared that, without public debate or regulation, rDNA technology might create new kinds of plagues, alter human evolution, and irreversibly alter the environment. Berg urged other researchers to voluntarily ban the use of rDNA technologies and sent a letter to the president of the National Academy of Science (NAS). The NAS responded by establishing the first Committee on the Recombinant DNA Molecules. In 1974 that committee agreed to the temporary ban on the use of rDNA technologies and decided that the issue required the attention of an international conference. Scientists worldwide were receptive to the voluntary ban and halted their work on rDNA experiments.

In February 1975, Berg and the NAS organized the Asilomar Conference on Recombinant DNA. Lawyers, doctors, and biologists from around the world convened in Monterey, California, to discuss the biohazard and biosafety implications of rDNA technology and to create a set of regulations that would allow the technology to move forward.

This conference provided a meaningful forum for discussing both whether scientists should use rDNA technologies and how to safely contain and control rDNA experiments. The Asilomar participants were able to identify proper safety protocols and containment procedures for some of these experiments, and they also prohibited some experiments, such as Berg's experiment involving cloning of recombinant DNA from pathogenic organisms.

The Asilomar conference resulted in the first set of National Institutes of Health (NIH) guidelines for research involving recombinant DNA. These guidelines are still the primary source of regulation of recombinant DNA research and have been periodically updated by the NIH.

The Asilomar conference also stimulated further controversy involving rDNA technologies. On one side, concerned citizens and public interest groups that had not participated in the conference began to demand a voice in the regulation of recombinant DNA technologies. The city of Cambridge, Massachusetts, exerted its power to control the rDNA research conducted in its universities, creating the Cambridge Biohazards Committee to oversee DNA experiments. The environmental organization Friends of the Earth even brought a lawsuit demanding that the NIH issue an environmental impact statement on rDNA research. On the other side, biological researchers opposed the inclusion of the public in the rDNA discussion. These researchers feared that public participation in the matter might restrict and compromise the freedom of scientific research.

Ongoing Research and Debate

Humans have for centuries used selective breeding and hybridization techniques to alter food-producing plants. The introduction of recombinant DNA technologies, however, has allowed humans to genetically cross plants, animals, and microorganisms into food-producing plants. There are two basic methods for passing genetic traits into plants. First, biologists can infect a plant cell with a plasmid containing the cross-species genes. Second, biologists can shoot microscopic pellets carrying the cross-species genes directly through the cell walls of the plants. In either case, biologists are reliably able to move desirable genes from one plant or animal into a food-producing plant species.

For instance, scientists have already spliced genes from naturally occurring pesticides such as *Bacillus thuringiensis* into corn to create pest-resistant crops and have genetically altered tomatoes to ensure their freshness at supermarkets.

Genetic technologies allow an increase in properties that improve nutrition, improve the capacity to store and ship food products, and increase plants' ability to resist pests or disease.

In 1994 the U.S. Food and Drug Administration approved the first genetically modified food for sale in the United States. Now genetic modification of food supplies is pervasive, particularly in staple crops such as soy, corn, and wheat. Cross-species gene splicing has, however, created at least two significant controversies.

One controversy arose over the use of "terminator" gene technologies. When biotechnology companies began to produce foods with cross-species genes, they included terminator genes that sterilized the seeds of the plants. This terminator technology served two functions: it kept the plants from reproducing any potential harmful or aberrant

effects of the genetic engineering, and it also ensured that farmers who purchased genetically modified plants would need to purchase new seeds from the biotechnology companies each year.

The use of terminator technologies caused an international social debate, especially when biotech companies introduced their genetically modified foods into developing countries. Because farmers in developing countries tend to reseed their crops from a previous year's harvest, the terminator technology created a new and unexpected yearly production expense. Civil and human rights groups urged banning the introduction of genetically modified crops in developing countries, arguing that any potential nutritional or production benefits offered by the genetically modified foods would be outweighed by the technological mandate to purchase expensive, patented seeds each year. In response to this, Monsanto (the biotechnology company that owns the rights to the terminator gene patents) pledged not to commercialize the terminator technology. Human rights groups continue to work toward implementing legal bans on the use of the technology, however.

Another controversy arose with a concern about genetic pollution. Although biologists are reliably able to splice or physically force gene sequences from one species into another, they are not always able to control the reproduction and spread of the altered plants. This has created serious debate over the introduction of genetically modified food from laboratories into natural ecosystems.

One concern is that the genetic alterations will pass from the food-producing crop to weeds that compete for nutrients and sunlight. One good example occurs with pesticide-resistant crops. Some biotechnology companies have modified crops to resist the application of certain pesticides. This allows farmers to apply pesticide to their fields while the modified crop is growing, thus reducing competition from weeds and attacks by pests. However, biologists cannot always control whether the pesticide-resistant gene will stay confined to the food-producing crop. Sometimes the pesticide-resistant gene migrates to surrounding plants, thus creating "super weeds" that are immune to the application of pesticides.

Another concern is that the genetic alterations will unintentionally pass from the modified food-producing crop into another natural strain. Here the concern is that the uncontrolled movement of cross-species genetic alterations may alter evolutionary processes and destroy biodiversity. For example, one controversy focuses on whether the introduction of genetically modified corn has led to the cross-pollination of native Mexican strains of maize. There is also a concern about introducing strains of genetically modified potatoes into areas of Peru, where subsistence farmers safeguard many native strains of potatoes.

The final and perhaps most important social concern is the safety and quality of the food produced by genetically altered plants. There has been a general inquiry into the safety of genetically modified foods. Because few tests have been conducted into

the safety of these foods or the long-term effects on human health, there is a strong movement, particularly in western European countries, to ban "Frankenfoods." There has been an even stronger reaction over the labeling and separation of genetically modified foods. Moving genes from one species to another food-producing crop can raise serious allergy and safety concerns. When, for example, one company began splicing desired genes from Brazil nuts into soybeans, it became apparent that the resulting modified soya plant would induce allergic reactions in any person with a nut allergy. However, because food distribution systems, especially in industrialized countries, tend to collectively amass and distribute staple crops, there is no way to tell which foods contain genetically altered plants if no labeling or separating requirement is installed. This raises concerns about the ability to recall products should scientists discover a problem with genetically altered foods.

As with agriculture, humans have long practiced forms of animal biotechnology by domesticating animals and through practices of animal husbandry. However, the use of rDNA technology has allowed humans to clone animals and produce transgenic animals. Scientists now genetically insert genes from cows into chickens to produce more meat per animal, genetically alter research laboratory rats to fit experiments, and genetically modify pigs to grow appropriate valves for use in human heart transplant procedures.

Although all the concerns about plant biotechnology, and particularly the concern about genetic pollution, apply to the genetic manipulation of animals, there are several controversies unique to the application of biotechnology to animals.

The first, and perhaps most fundamental, controversy over the application of biotechnology to animals is the moral reaction against "playing God" with recombinant DNA technologies. Many religious and ethics groups have chastised biologists for violating fundamental limits between species that cannot, without major evolutionary changes, otherwise breed. This has brought a serious debate over whether the biotechnological mixing of species is unnatural or whether it merely demonstrates the arbitrary segregation of our scientific categories of kingdoms and species.

Another controversy unique to applying biotechnology to animals concerns the rights and welfare of genetically modified animals. Genetic technology has, for example, allowed great advances in xenotransplantation (the use of pigs as sources of organs for ailing human beings) and in genetically altering laboratory rats. This enables scientists to "pharm" medical products and laboratory subjects from genetically altered animals. However, this ability to extract resources from animals comes into direct conflict with a growing awareness of ethical duties toward animals and of animal rights. Although few critiques suggest that these ethical duties require us to abandon the practice of applying biotechnology to animals, they have raised serious questions about how genetic modifications alter the lives of animals and what sorts of safeguards or standards should be employed in animal biotechnology.

See also **Genetic Engineering; Genetically Modified Organisms; Stem Cell Research**

Further Reading

Metz, Matthew, "Criticism Preserves the Vitality of Science." *Nature Biotechnology* 20 (2002): 867.

Olmsted, Alan L., *Creating Abundance: Biological Innovation and American Agricultural Development.* New York: Cambridge University Press, 2008.

Patterson, D. J., et al., "Application of Reproductive Biotechnology in Animals: Implications and Potentials." *Animal Reproductive Science* 79 (2003): 137–143.

Quist, David, and Ignacio Chapela, "Transgenic DNA Introgressed into Traditional Maize Landraces in Oaxaca, Mexico." *Nature* 414 (2001): 541–543.

Rodgers, Kay, *Recombinant DNA Controversy.* Washington, DC: Library of Congress, Science and Technology Division, Reference Section, 1978.

Schaller, Barry R., *Understanding Bioethics and the Law: The Promise and Perils of the Brave New World of Biotechnology.* Westport, CT: Praeger, 2008.

BROWNFIELDS DEVELOPMENT

Robert William Collin

Policy aimed at cleaning up contaminated land is called *brownfields.* It is relatively new, with a distinct urban focus. It is controversial because of the displacement of current residents and reliance on market forces to rebuild some sites. Whether the site is cleaned up to a level safe for residential development, or just safe enough for another industrial use, is a community controversy.

Beginning of Brownfields Policy

Since the disaster of Love Canal and the Hooker Chemical Company, U.S. environmental policy has developed a distinct cleanup aspect. It is very controversial. Extremely hazardous sites were prioritized as part of a National Priorities List under the Superfund program. Superfund can assess liability for the cost of a cleanup against the property owner if no other primary responsible parties are around. Huge amounts of unaccounted wastes were produced before the U.S. Environmental Protection Agency (EPA) was formed in 1970, and huge amounts have continued to be produced. As much as 80 percent of Superfund budget allocations have gone to the litigation that can surround these sites. As knowledge and public awareness increased, many more sites were located. Most states had adopted some type of landfill or waste management environmental policy by the late 1980s. Controversies that still simmer today over what is hazardous pushed the EPA into a new phase of cleanup policy. There was a need to prevent nonhazardous sites from becoming hazardous. This can happen at illegal dumps over time. Metals from refrigerators, stoves, cars, cans, and roofing can leach into the water, depending on the site. Many of these sites were in or near densely populated areas, which were not traditional

areas for the EPA at this time. In some states this was legal if operated as a dump, no matter where it was located. There were many sites waiting to be verified as hazardous or not for Superfund consideration. Even if the community was successful in getting the site designated as hazardous, there was a complicated and political process of getting on the National Priorities List, a list of about 1,200 or so of the most important sites for the EPA. Getting a site designated as hazardous was not always considered the best thing for the community because it could suppress property values. Sometime local government fought against such a designation, against the community and the EPA. This is often the case in many communities seeking environmental justice. As environmental justice advocacy increased within the EPA in the early 1990s, cleanup policy changed to include more of these sites. In 1993 the EPA first began to address sites that may be contaminated by hazardous substances but that did not pose a serious enough public health risk to require consideration for cleanup under the Superfund program.

The cleanup policy that evolved was conceptualized regionally at first, partially motivated by concerns about sprawl. The idea was to save as much green space as possible by reusing, or infilling, some of these polluted sites. Infill is often proposed as a mitigating solution to sprawl. Municipal boundaries are not related to bioregions or ecosystems, and some municipalities or cities may not want infill. Municipalities have different and sometimes competing priorities. Combating sprawl or environmental protection and cleanup are generally not as important as economic development at this level of government. As a result, there are many polluted sites. When they are abandoned and foreclosed on by the municipality or city for failure to pay property taxes, the city owns them. Cities, such as Milwaukee, for example, then become liable for the cleanup of the polluted sites, and they also lose tax revenue. It is extremely difficult to sell polluted land, and all efforts are made to escape environmental liability in the process. According to the EPA,

> Brownfields are abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. They range in size from a small gas station to abandoned factories and mill sites. Estimates of the number of sites range from the tens of thousands to as high as 450,000 and they are often in economically distressed areas.

Portland, Oregon, estimates that it has about 1,000 brownfield sites. Developers avoid them because of cleanup costs, potential liability, or related reasons.

Recent Developments

In 2001, new brownfields policy development authorized granting a liability exemption to prospective purchasers who do not cause or worsen the contamination at a site. It also gave this exemption to community-based nonprofit organizations that seek to

redevelop these sites. Most states now have their own brownfields programs. There were substantial differences between some state approaches and the EPA brownfields policy. Some of this has to do with the level of cleanup required for a site to be considered clean. An industrial level is cheaper but still polluted. A residential level is very expensive but not polluted. It is still very controversial. Often no developers or nonprofits are willing to clean up the site. Unlike Superfund, brownfields policy does not attack primary responsible parties for liability. State policy approaches are given some leeway in the 2001 policy changes. The new policy stops the EPA from interfering in the state cleanups. There are three exceptions written into the law:

1. A state requests assistance.
2. The contamination migrates across state lines or onto federal property.
3. There is an "imminent and substantial endangerment" to public health or the environment and additional work needs to be done.

U.S. Urban Environmentalism

The United States is still in the early stages of urban environmentalism, a complex subject with intricate and important histories. The potential for unintended consequences for people, places, and policy is great. Solid wastes are accumulating every day, combined with a century of relatively unchecked industrial waste that continues to pollute our land, air, and water on a bioregional basis. The wastes in our ecosystem respect no human-made boundary, and the consequences of urban environmental intervention through policy or other actions, intended or not, affect us all.

Terms of Art

Brownfields Site

According to the most recent law and policy Public Law 107–118 (H.R. 2869), "Small Business Liability Relief and Brownfields Revitalization Act," signed into law January 11, 2002, the definition of brownfield is as follows: "With certain legal exclusions and additions, the term 'brownfields site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant."

Superfund Site

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. There are tens of thousands of abandoned hazardous waste sites in our nation. The implementing edge of the Superfund program is a system of identification and prioritization that allows the most dangerous sites and releases to be addressed, called the National Priorities List.

When outcomes from cleanup and revitalization projects are assessed, the EPA may have unintentionally exacerbated historical gentrification and displacement. EPA funds may have been used to continue private development at the expense of low-income residents.

Urban Environments

Urban areas are complex. For at least a century, urban areas in the United States experienced unrestrained industrialization, with no environmental regulation and often no land-use control. U.S. environmental movements have focused on unpopulated areas, not cities. In addition, U.S. environmental movements did not consider public health as a primary focus. Rather, they emphasized conservation, preservation of nature, and biodiversity. In addition to being the dynamic melting pot for new immigrants, cities became home to three waves of African Americans migrating north after the Civil War. These groups faced substantial discrimination in housing, employment, education, and municipal services. African Americans are the only group in the United States to not have shared in equal opportunity for employment, housing, and education. In addition, people of color and low-income people faced increased exposure to the pollution that accompanied industrialization.

Citizens living in urban, poor, and people-of-color communities are currently threatened by gentrification, displacement, and equity loss on a scale unprecedented since the urban renewal movement of the 1960s. Market forces appear to be the primary drivers of this phenomenon. Spurred by local government attempts to reclaim underutilized and derelict properties for productive uses, residents and business owners who once abandoned the urban core to the poor and underemployed now seek to return from the suburbs. By taking advantage of federal policies and programs, municipalities, urban planners, and developers are accomplishing much of this largely beneficial revitalization. However, from the perspective of gentrified and otherwise displaced residents and small businesses, it appears that the revitalization of their cities is being built on the backs of the very citizens who suffered, in place, through the times of abandonment and disinvestments.

Although these citizens are anxious to see their neighborhoods revitalized, they want to be able to continue living in their neighborhoods and participating in that revitalization.

In addition to facing tremendous displacement pressure, African Americans and other people of color also face difficult challenges in obtaining new housing within the same community (or elsewhere) after displacement. For example, when these populations are displaced, they must often pay a disproportionately high percentage of their incomes for housing. Moreover, they suffer the loss of important community culture. Although it is not fair to suggest that federal reuse, redevelopment, and revitalization programs are the conscious or intentional cause of gentrification, displacement, and equity loss in these

communities, it is apparent that the local implementation of these programs is having that net effect. These then become the unintended impacts of such well-intended and otherwise beneficial programs. Brownfields is a pioneering urban environmental policy and unintended consequences could easily result from it.

Community activists should have an educated perspective to decide whether brownfields programs will provide hope and opportunity to their distressed neighborhoods or whether they will exacerbate environmental contamination and/or provide little or no opportunity for their own families to benefit proportionately. Brownfields redevelopment is a big business. Profits are generally more important to brownfields entrepreneurs than community concerns about displacement or reduced cleanup standards. In fact, at the EPA's 2004 National Brownfields Conference, developers reinforced this notion by highlighting their perspective that in order for communities to be players in the redevelopment and revitalization process, they had to be financially vested in the process. This view clearly speaks to the need for EPA intervention to ensure meaningful community involvement irrespective of financial status.

The EPA provides some funding for brownfields to state and local government and to some tribes. As of July 2007, about $2.2 million was awarded to brownfields revolving loan fund recipients. The EPA claims that since 1997 they have awarded about $55 million for about 114 loans and 13 subgrants. The EPA states these loan funds have leveraged more than $780 million in other public and private cleanup and redevelopment investments. Some criticize the program as being underfunded and underresourced. They say the need for cleanup of the places where we live, work, and learn is paramount for any environmental cleanup policy.

How Clean Is Clean?

Cumulative impacts concern the EPA because they erode environmental protection and threaten public health, safety, and welfare. They cross all media—land, air, and water. Independently, media-specific impacts have been the focus of the EPA's work for years. However, if the combined, accumulating impacts of industrial, commercial, and municipal development continue to be ignored, the synergistic problems will only get worse. The cleanup of past industrial practices must be thorough and safe for all vulnerable populations—so say most communities. Another community concern is that long-term industrial use of a given site may decrease the overall value of property in the area, resulting in a loss of wealth over time. However, to clean up the site to a level safe enough for residential development is much more expensive. It is also fraught with uncertainty, which translates into risk for most real estate financial institutions. The state of the law of brownfields cleanup is also very uncertain and dynamic. One thing is certain though: the United States is dotted with contaminated sites generally concentrated in urban areas and multimodal transit nodules (e.g., ports, depots).

By far, the populations most impacted by brownfields decisions are those who live, work, play, or worship near a contaminated site. These people are already in areas with a high pollutant load, with generally higher rates of asthma.

Vulnerable populations such as pregnant women, the elderly, children, and individuals with pre-existing health problems are at increased risk. In many environmental justice communities, a brownfields site may be the only park-like setting available, so it can attract some of the most vulnerable populations.

To the extent members of the community are forced to leave because of increased housing costs, the community loses a piece of its fabric, and sometimes knowledge of its history and culture. This adverse impact must be addressed as part of a cumulative assessment. The sense of identity common to many communities concerned with environmental justice is threatened when communities are displaced.

Conclusion

As part of the first and very necessary wave of urban environmentalism, brownfields unearths many deep-seated environmental and political controversies. U.S. environmental policy and the U.S. environmental movement have ignored cities, where most of the pollution and most of the immigrants and people of color reside. The environment, urban or not, is difficult to ignore as population expands and concepts of sustainability are developed. Citizen monitoring of the environment, environmental lawsuits, and the need to enforce environmental laws equally have driven environmental policy to urban neighborhoods. Cleanup of the environmentally devastated landscape is usually an early priority for any governmental intervention in environmental decision making.

A hard uncertainty underscores the current methods of holding private property owners liable for waste cleanup. What if they cannot afford it? What if they manipulate bankruptcy or legitimately cannot afford it? What if the contamination is so extensive that no one stakeholder alone can afford to clean it up? Ecosystem risk assessment, now mandated at Superfund sites, will unearth only more contamination. The levels of contamination themselves are highly controversial because some believe that as these levels stand now, they do not protect the public enough. How much real estate corporations and banks should be supported by government in developing market-based cleanup strategies is a big policy controversy.

Yet without any intervention these sites accumulate wastes that can spread to water and land. They do not go away but generally get worse. Over time there will be no hiding any of them. With the new and rapidly developing global consensus on sustainability, cleanup of contaminated sites is a natural and necessary first step. This step takes place in a political context of race, class, and awkward histories of human oppression. The immigrants and migrants always lived in the tenements or on the other side of the tracks. (Train toilets dumped directly on the tracks until the late 1990s.) Success was defined as leaving the city for a house in the suburbs, with a better school district. Many

but not all immigrant and migrant groups came through polluted and unhealthy urban neighborhoods.

This political step is also a necessary step and one that remains very controversial in the U.S. context. Currently, brownfields is the policy face of that step forward.

BROWNFIELDS PLAYING A ROLE IN THE BIOFUELS INDUSTRY

Many contaminated sites are old gas stations, which often have leaking underground storage tanks. The cleanup costs and liability are much larger when the contamination has spread, especially if it has spread to water. However, without cleanup the contamination can spread. From the city's point of view, such sites unproductive pieces of taxable property. This common scenario has been repeated many times over the last 30 years. Creative new solutions to this difficult and controversial policy issue require collaboration by local government, the EPA, and the property owner.

SeQuential Biofuels opened the first alternative fuel station in Oregon. The United States has a renewed interest in gaining energy security and independence by moving toward producing more of its fuels at home, including biofuels such as ethanol and biodiesel. Biofuels are cleaner fuels that produce fewer pollutants than mainstream fuels. There also is much potential for home-grown economic development in this rising new industry.

Brownfields redevelopment can play an important role in this emerging industry. Brownfields are a good fit because the redevelopment of these contaminated lands protects green space; moreover, the sites often offer an opportunity to reutilize barren urban and industrial space. And often these former gas stations are ideal for such development because they already sit on properties close to roadways.

SeQuential Biofuels has 33 branded pumps around the state with independent retail sites. The company, which owns 60 percent of the biodiesel market share in Oregon, has a large commercial biodiesel production facility that may serve as a model for gathering the fat necessary for biofuel production. Each year, this facility produces a million gallons of biodiesel made from used cooking oil collected from regional restaurants and food processors. It also uses virgin canola oil grown in eastern Oregon. By gathering resources and wastes locally, recycling and processing them, and distributing them locally, the overall ecological production footprint is smaller because of lower energy costs through less transportation. The retail fuel station sits along a commercial corridor adjacent to Interstate 5. The former Franko facility sold gasoline from 1976 until 1991. At that time, the property was turned over to a bankruptcy trustee. Also in 1991, petroleum contamination from the site was observed during trenching along the highway east of the site. Contamination also had migrated to a residential well west of the facility.

In 1996, a private party purchased the property and removed the five underground storage tanks and some contaminated soil. Subsequent assessment identified the former fuel pump islands as the primary source of contamination. Lane County then acquired

the property through tax foreclosure and in January 2005 removed more than 400 tires and 15 drums of waste.

SeQuential purchased the property later that year after entering into a prospective purchaser's agreement with the Oregon Department of Environmental Quality (DEQ). The retail fuel station, which sells ethanol and biodiesel blends, opened in the fall of 2009.

Renewable energy, energy efficiency, and sustainable design elements are all part of the business plan. Covering the fueling islands are 244 solar panels that will provide 30 to 50 percent of the electrical power the station requires annually. On the roof of the convenience store is a garden. There are 4,800 plants in five inches of soil.

SeQuential took advantage of several state incentives on this project. Oregon and Washington have played active roles in providing tools to advance biofuels in the private sector. On this project, the Oregon DEQ provided $19,600 for site assessment, the EPA awarded a $200,000 brownfields cleanup grant to Lane County, and the Oregon Economic and Community Development Department provided a $50,000 loan as matching funding for the EPA assessment grant through its Brownfields Redevelopment Fund. The project also qualified for the Oregon Department of Energy's Business Energy Tax Credit, which equals 35 percent of an eligible project's costs, and its Energy Loan Program, which provides low-interest loans.

In its first six months in business, the retail station exceeded volume projections. Its biggest obstacle now is teaching consumers that these biofuels are appropriate for any vehicle.

See also **Cumulative Emissions; Environmental Justice; Land Pollution**

Further Reading

Cohen-Rosenthal, Edward, and Judy Musnikow, *Eco-Industrial Strategies: Unleashing Synergy between Economic Development and the Environment.* Sheffield, UK: Greenleaf, 2003.

Collin, Robert W., *The U.S. Environmental Protection Agency: Cleaning Up America's Act.* Westport, CT: Greenwood Press, 2006.

Hollander, Justin B., *Polluted and Dangerous: America's Worst Abandoned Properties and What Can Be Done about Them.* Burlington, VT: University of Vermont Press, 2009.

Russ, Thomas H., *Redeveloping Brownfields: Landscape Architects, Planners, Developers.* New York: McGraw-Hill, 1999.

Thomas, June Manning, and Marsha Ritzdorf, eds., *Urban Planning and the African American Community: In the Shadows.* London: Sage, 1997.

Thompson, J. William, and Kim Sorvig, *Sustainable Landscape Construction: A Guide to Green Building Outdoors.* Washington, DC: Island Press, 2000.

Witkin, James B., *Environmental Aspects of Real Estate and Commercial Transactions: From Brownfields to Green.* Chicago: American Bar Association, 2005.

C

CANCER

Michael Prentice

Knowledge and understanding of cancer, the leading cause of death in the United States and worldwide, has grown exponentially in the last 20 years. Investment in research and technology has greatly reduced the effects of cancer through advances in prevention, detection, and treatment. Survival rates have never been greater: in 2003, the rate of cancer deaths dropped in the United States for the first time since 1930.

Causes of Cancer

Radically different approaches to prevention and treatment, despite their successes, continue to divide the medical and scientific communities. Developments in cancer research stretch across the medical spectrum. From identifying new drugs to developing new screening tests and implementing more effective therapies, breakthroughs occur every day. Each of the 100 different types of cancers affects the body in unique ways and requires specific prevention, detection, and therapy plans. Understanding the complexities of this disease, which afflicts more than half of all men and a third of all women in the United States, is vital to the medical health of the nation.

The causes of cancer are becoming better understood. Genetics and lifestyle both can contribute to a person's susceptibility to cancer. For example, diet can greatly affect a person's chances of getting cancer. Certain lifestyle choices—such as having excess body fat, eating red meat, not engaging in physical exercise, or consuming alcohol—all seem to increase the likelihood of developing cancer. Many cancers tend to

be caused by long-term exposure to cancer-causing agents, such as environmental toxins, rather than by a single incident. Environmental factors and lifestyle choices, however, do not always predict the appearance of cancer; instead, they should be taken as indicators of a higher risk. Understanding how these things interact with genetic factors over the course of a person's life is the front line for future cancer research.

Remedies and Care

The treatment of cancer used to entail surgery, chemotherapy, radiation, or a combination of the three. Although these types of procedures have altered the medical landscape for treating cancer over the past 100 years, new methods have emerged that bypass invasive or problematic surgeries. Researchers have begun to understand how the body fights cancer on its own through the immune system. Many of the developments in fighting cancer have come through the harnessing of the immune system's ability to produce antigens to combat cancerous cells.

Vaccines

Therapy in the form of cancer vaccines has been largely experimental. Recently, however, the U.S. Food and Drug Administration (FDA) approved a major breakthrough in cancer prevention using vaccines.

The development of a vaccine against the human papillomavirus (HPV) marked the first vaccine to gain approval in the fight against cancer since the hepatitis B vaccine. HPV is a leading cause of cervical cancer and, to a lesser degree, other types of cancer. The vaccine, which has gained FDA approval, was shown to be 100 percent effective against two of the leading types of HPV virus. These two strains account for 70 percent of all cervical cancers worldwide.

Vaccines for cancer can either prevent the disease directly (therapeutic vaccines) or prevent its development (prophylactic vaccines). Therapeutic vaccines are used to strengthen the body against existing cancers so as to prevent the reappearance of cancerous cells. Prophylactic vaccines, like the one for HPV, prevent the invasion of viruses that ultimately cause cancer. The HPV vaccine represents a significant breakthrough in cancer research. There are no officially licensed therapeutic vaccines to date, although numerous prophylactic vaccines are being tested by the National Cancer Institute.

Vaccines are part of a growing area of treatment known as biological therapy or immunotherapy. Biological therapy uses the body's immune system to fight cancer or lessen certain side effects of other cancer treatments. The immune system acts as the body's defense system, though it does not always recognize cancerous cells in the body and often lets them go undetected. Furthermore, the immune system itself may not function properly, allowing cancerous cells to recur in a process called metastasis, wherein the

RECENT GOVERNMENT ACTION

Aiming to eradicate cancer, U.S. President Barack Obama earmarked $6 billion for cancer research in his budget proposal for 2010. The funding, which represents around an 8 percent increase from 2009, is aimed at initiating 30 new drug trails in 2011 and doubling the number of novel compounds in clinical trials by 2016. With the additional investment, Obama seeks to stimulate research into breast cancer, melanoma, sarcoma, and pediatric cancers, among others, which in recent years reached a funding plateau that has curtailed further investigation into cures. The National Cancer Institute, part of the National Institutes of Health, expects to receive about $1.3 billion more from Obama's economic stimulus plan to further examine treatment possibilities for restoring health degraded by cancer.

cancerous cells spread to other parts of the body. Biological therapy seeks to step in to enhance or stimulate the body's immune system processes.

Genotyping

One of the new dimensions of cancer research has been the revolution of personalized, or molecular, medicine. Personalized medicine takes into account knowledge of a patient's genotype for the purpose of identifying the right preventive or treatment option. With the success of the Human Genome Project, new approaches have emerged in the field of cancer research. Approaching cancer from the perspective of "disease management" will lead to more customized medical treatments.

The successful implementation of such a revolutionary way of handling the disease will require that a vast amount of genetic data be classified, analyzed, and made accessible to doctors and researchers to determine treatments for individual patients. In 2004, cancer centers across the United States took part in the implementation of the National Cancer Institute's cancer Biomedical Informatics Grid (caBIG), a virtual community that seeks to accelerate new approaches to cancer research. The caBIG community aims to establish an open-access database that provides researchers the necessary infrastructure for the exchange of genetic data.

Gene Expression Profiling

New methods for detecting cancer have also been making headlines. One such method has been gene expression profiling, a process that is capable of identifying specific strains of cancer using DNA microarrays. These microarrays identify the activity of thousands of genes at once, providing a molecular profile of each strain. Research has demonstrated two important guidelines in cancer identification and treatment. Even though certain types of cancer look similar on a microscopic level, they can differ greatly on a molecular level and may require vastly different types of therapy.

The most notable example of this type of process has been used to identify two different strains of non-Hodgkin's lymphoma (NHL), a cancer of the white blood cells. Two common but very different strains of NHL call for radically differing treatments, such that the ability to easily diagnose which strain is active has been a great boon for treatment. In the past, failure to diagnose the different strains has led to therapeutic errors and resulted in lower survival rates.

Proteomics

Another innovation in cancer detection involves the field of proteomics. Proteomics—the study of all the proteins in an organism over its lifetime—entered into the discussion about cancer detection when it was discovered that tumors leak proteins into certain bodily fluids, such as blood or urine. Because tumors leak specific types of proteins, it is possible to identify the proteins as "cancer biomarkers." If such proteins can be linked to cancers, then examining bodily fluids could greatly increase the ability to screen patients for cancer at the earliest stages.

Certain proteins have already been implemented as cancer biomarkers. Levels of certain antigens—types of protein found in the immune system—can indicate cancer of the prostate (in men) or of the ovaries (in women). This method of detection has not yet proved to be 100 percent effective. It may give false negatives in which the test may not detect cancer when it is actually present or even false positives where it may detect cancer in cancer-free patients.

ELECTROMAGNETIC RADIATION AND CANCER

A possible link to cancer from high-tension power lines has researchers looking for a public policy solution to prevent a jump in deadly tumor rates among all animals. At very high frequencies—less than 100 nanometers—electromagnetic particles, also known as photons, have enough power to break chemical bonds in living matter. This is called ionization. One example is x-rays. At lower frequencies, the power of a photon is generally considered too low to be destructive. Most visible light and radio frequencies fall into this range. The scientific community contends that high-frequency sound emissions have a cumulative, synergistic, antagonistic, and chemically interactive effect on humans and other mammals that can cause illness and even death.

That said, there is broad consensus that exposure to high-frequency power lines cannot be proven to be either safe or dangerous. There is a marked divergence in conclusions between U.S. and British research on the danger of electromagnetic fields to humans and other mammals. Technological advances in the near future will form the early contours of this scientific debate; they could open it up to federal legislation, class-action lawsuits, and thousands of land-use ordinances designed to prevent electrical companies from stringing new high-tension power lines.

—Robert William Collin

As processes for detecting cancer improve, the number of cancer diagnoses is likely to increase. Although this would increase the overall incidence of cancer, it would also decrease its lethal consequences.

Improving Outcomes

Traditional forms of cancer treatment—surgery, chemotherapy, and radiation—are also undergoing significant breakthroughs. Developments in traditional cancer treatment involve refining existing procedures to yield better outcomes and reducing the side effects typically associated with such treatments. For example, chemotherapy regimens for head and neck cancers, typically difficult to treat, have improved through recombination of chemotherapy treatments with radiation, the first such major improvement for that type of cancer in 45 years.

Chemotherapy solutions are also being affected by the genetic revolution. A burgeoning field called pharmacogenomics seeks to tailor pharmaceutical offerings to a patient's genetic makeup, abandoning the one-size-fits-all or "blockbuster" drug of previous years. Drugs will now be matched using knowledge of a patient's gene profile, avoiding the trial-and-error method that is often practiced in trying to find the correct treatment for a given patient. Patients will be able to avoid unwanted side effects from unnecessary drugs, as well as lower the cost of health care and reduce repeat medical visits.

Much ground must still be covered before a pharmacogenomics revolution can take place. Drug alternatives must be found for numerous genotypes to avoid leaving patients without any options if their genotypes do not match the drugs available. Drug companies must also have incentives to make specialized drugs, given the exorbitant cost of offering only one single drug.

The effects of cancer and cancer treatments will continue to be studied as more information on the long-term effects of certain diseases becomes available. New examples of long-term complications with cancer have emerged recently in survivors of both breast cancer and childhood cancer. Breast cancer survivors have reported fatigue 5 and even 10 years after their treatment. Similarly, long-term research into childhood cancer survivors has shown that children who survive cancer are much more likely to have other health problems, five times more frequently than their healthy siblings. A large percentage of childhood survivors often developed other cancers, heart disease, and scarring of the lungs by age 45. Such evidence underscores the complicated nature of cancer survival and the fact that long-term studies will continue to play an important role.

There are now more than 10 million cancer survivors in the United States alone. The cancer survival rate between 1995 and 2001 was 65 percent, compared with just 50 percent from 1974 to 1976. As more becomes known about cancer itself, more will also be learned about the effects of cancer after remission. Studies examining cancer survivors 5 to 10 years after surgery are revealing that the effects of cancer and cancer treatment can extend beyond the time of treatment.

Not all research into cancer has been positive: certain types of cancer—namely skin cancer, myeloma (cancer of plasma cells in the immune system), and cancers of the thyroid and kidney—are on the rise. The reasons for the increase in cancers are wide-ranging and require further research to be fully understood.

With the fight against cancer continuing to evolve, new advances continue to converge from different fronts—in the use of human biospecimens, nanotechnology, and proteomics. Each of these fields individually has contributed to the efforts at detecting, preventing, and treating cancer, but if these efforts can be streamlined and pooled, a major battle in the fight against cancer will have been won.

As the fight has taken on a more global character, developments in knowledge sharing and community support have provided cancer researchers, patients, and survivors with new means of battling this life-threatening disease. As the technologies and infrastructures change, however, public policy will also have to change the way advancements in medical science are linked with accessibility for patients, so that financial means will not be a prerequisite for receiving these new treatments.

See also **Children and Cancer; Genetic Engineering; Human Genome Project; Stem Cell Research; Vaccines**

Further Reading

Cantor, David, ed., *Cancer in the Twentieth Century.* Baltimore: Johns Hopkins University Press, 2008.

Faquet, Guy B., *The War on Cancer: An Anatomy of Failure, a Blueprint for the Future.* Dordrecht: Springer, 2005.

Khoury, M. J., and J. Morris, *Pharmacogenomics and Public Health: The Promise of Targeted Disease Prevention.* Atlanta: Centers for Disease Control and Prevention, 2001.

Nass, S., and H. L. Moses, eds., *Cancer Biomarkers: The Promises and Challenges of Improving Detection and Treatment.* Washington, DC: National Academies Press, 2007.

National Cancer Institute, "Cancer Vaccine Fact Sheet. http://www.cancer.gov/cancertopics/factsheet/cancervaccine

Ozols, R., et al., "Clinical Cancer Advances 2006: Major Research Advances in Cancer Treatment, Prevention, and Screening—A Report From the American Society of Clinical Oncology." *Journal of Clinical Oncology* 25, no.1 (2007): 46–162.

Sanders, C., "Genomic Medicine and the Future of Health Care." *Science* 287, no. 5460 (2000): 1977–1978.

CARBON OFFSETS

Robert William Collin and Debra Ann Schwartz

The increasing concentration of carbon dioxide in the air and its part in global climate change have motivated individuals and corporations to consider ways to reduce the amount of it. As a solution, the notion of carbon emissions trading—also known as

carbon offsets—came into being and was approved by elected officials. This approach allows people and companies to purchase permission to pollute. It is part of a "cap and trade" system, whereby a certain amount of pollution is deemed allowable, and, within that allowable limit (or cap), it is possible to buy credits. This is intended to prevent or at least curb or delay increases in carbon monoxide emissions from vehicles, for example. Do such offsets work? Or is the system flawed?

What Are Carbon Offsets and How Do They Work?

Carbon offsets are a financial instrument intended to reduce greenhouse gas emissions. They typically are used in the form of investment in a project, such as wind farms, biodiesel plants, or hydroelectric dams or systems for destroying landfill methane, industrial pollutants, and agricultural by-products. Some of the most popular carbon offset projects from a corporate perspective are energy efficiency and wind turbine projects.

Sanctioned by the Kyoto Protocol, the system is a way for governments and private companies to earn carbon credits that can be traded. That means companies will receive a certain amount of credits, allowing them to run their businesses and pollute a certain amount. If their business needs more than the allotted amount, they may purchase emissions credits from a company that does not need as much as its allotment. Therefore one company may sell to another or purchase from another for an unregulated price, creating market competition for pollution credits. This economic stimulation is provided for in the Clean Development Mechanism (CDM) written into the protocol. Organizations unable to meet their emissions quota can offset (supplement) their quotas by buying CDM-approved Certified Emissions Reductions.

The CDM exists to ensure that projects produce authentic benefits. It validates and measures projects to make sure that they involve genuinely "additional" activities, which would not otherwise have been undertaken.

Carbon offsets extended to the level of individual air travelers when companies specializing in brokering emissions trades reached out to them, asking if they might want to pay for their share of the carbon dioxide on a particular flight. Airplane emissions are substantial. Besides fuels and lubricants, airports use wing deicers and other toxic solvents. With acres of paving, the runoff of these pollutants usually affects local water supplies unless treated. The money paid is supposed to go to an activity that uses carbon dioxide to offset the carbon dioxide emitted on the flight, such as tree plantings. Some have estimated that the carbon offset market could be as high as $100 million.

U.S. businesses have also been buying carbon dioxide offsets in order to engage in international business. The Kyoto Protocol set global caps on emissions of greenhouse gases like carbon dioxide. Many nations have devoted substantial resources for many years to the Kyoto process, as did international bodies like the United Nations and the Union of Concerned Scientists. National and international environmental groups, along with community groups and labor unions, all also devoted considerable resources to

this process. There is an international movement of cities that sign on with the Kyoto Protocols, including many of the major U.S. cities. U.S. businesses feel strong pressure to reduce the emission of greenhouse gases in order to continue international business transactions, where higher standards are required.

Emerging Questions

There are still some questions about how carbon dioxide emissions are calculated. Although the emissions estimates for most major activities are known, one significant issue concerns how the money for carbon offsets is spent. There is no well-defined offset protocol or policy. If the money goes to develop alternative renewable energy sources like wind and solar power, is the carbon dioxide from the petrochemicals that would have otherwise been used offset? Does it make a difference if the companies assisted make a profit, are nonprofit, or are state operated? Another gray area is home weatherization to save energy costs as a carbon offset. Does it make a difference to an offset program if a single homeowner is benefited? The argument for it counting as a carbon offset is that decreased energy use through conservation measures reduces carbon dioxide emissions by lowering consumption of pollution-causing energy sources. These differences can easily become the basis of public controversy.

Not Enough Regulation to Be Reliable?

The biggest upcoming battleground in this controversy is whether government regulation will help,. There are big differences in program costs and projects. There is a private, nonprofit effort to create a Green-E certification requiring the carbon offsets to meet a prescribed standard. Consumers want their carbon trades to truly reduce the amount of carbon dioxide emitted into the air, but that is not what they often get. There are also concerns that without regulation some offsets may be sold many times or go to projects that occur anyway.

Two powerhouse investigative reporting teams—the *Christian Science Monitor* and the New England Center for Investigative Reporting—have turned up evidence showing the system to be an unreliable form of environmental protection. In April 2010 the *Christian Science Monitor* online reported that individuals and businesses feeding a $700-million global market in carbon offset trading typically are buying vague promises instead of the greenhouse gas reductions they expect.

The team described the system as a scam or con game, one of whose effects was that people and companies were paying for projects that would have been carried out anyway. Their purchases fed middlemen and promoters "seeking profits from green schemes that range from selling protection for existing trees to the promise of planting new ones that never thrive. In some cases, the offsets have consequences that their purchasers never foresaw, such as erecting windmills that force poor people off their farms."

Discoveries made by the investigative reporters showed that carbon offsets are the environmental equivalent of financial derivatives in the banking industry: complex, unregulated, unchecked and, in many cases, not worth their price. And often, the reporters said, those who received "green credits" (among them the Vatican) thinking that their own carbon emissions had been offset, were fooled.

Conclusion

Carbon offsets grew out of ideals to do the right thing to mitigate air pollution. Some feared that the system would attract graft, and their fears seem to have been justified. Others believed the system would favor big polluters, allowing them to pay for the privilege of degrading the environment and contributing to global warming. There is some evidence of that. On the other side of the controversy are those who feel that the criticisms of the carbon offset market are inflated. But no matter what side you are on, the system bears serious scrutiny.

See also **Air Pollution; Carbon Taxes; Climate Change; Emissions Trading; Global Warming**

Further Reading

Bass, Stephen, and D. B. Barry Dalal-Clayton, *Sustainable Development Strategies: A Resource Book.* London: James and James/Earthscan, 2002.

Bayon, Ricardo, Amanda Hawn, and Katherine Hamilton, *Voluntary Carbon Markets: An International Business Guide to What They Are and How They Work.* London: James and James/Earthscan, 2007.

EcoBusiness Links, "Carbon Emissions Offsets Directory." January 20, 2008. www.ecobusinesslinks.com/carbon_offset_wind_credits_carbon_reduction.htm

Environmental Defense Fund, "Evaluation of Carbon Offset Programs." January 20, 2008. http://www.environmentaldefense.org/page.cfm

Follett, Ronald F., and John M. Kimble, *The Potential of U.S. Grazing Lands to Sequester Carbon and Mitigate the Greenhouse Effect.* Boca Raton, FL: CRC Press, 2000.

Smith, Kevin, *The Carbon Neutral Myth: Offset Indulgences for Your Climate Sins.* Amsterdam: Transnational Institute, 2007.

Struck, Doug, "Buying Carbon Offsets May Ease Eco-Guilt but not Global Warming." April 20, 2010. http://www.csmonitor.com/Environment/2010/0420/Buying-carbon-offsets-may-ease-eco-guilt-but-not-global-warming

CARBON TAXES

Robert William Collin and Debra Ann Schwartz

The carbon content of fuels is the focus of U.S. government strategy to encourage increased use of nonpolluting sources of energy and discourage use of fossil fuels by

making them more expensive to use. Lawmakers discerned that placing a tax on fuels using carbon in any form will reduce their attractiveness to consumers. That is known as a *carbon tax*. A carbon tax is a tax on the carbon content of fossil fuels (coal, oil, gas). The Obama administration and Congress currently are considering whether to levy carbon taxes.

The Nature of Carbon Taxes

The intent of carbon taxes is to reduce the amount of greenhouse gases, such as carbon monoxide from vehicles, emitted into the air. Doing so, it is hoped, will help keep intact the various layers of atmosphere supporting life on earth. Carbon taxes are an attempt to make polluters pay cash for the emissions they put into the air. The hope that people will not want to pay the increase to use gasoline, for example, and will seek alternative forms of energy for getting around town or running blenders in the kitchen, for example. Carbon is used to create computer chips, electricity and fuel cars, for example. Carbon taxes are now common throughout the world.

Economists and sustainability proponents have traditionally embraced the idea of having the polluter pay, which means that the polluter pays the costs of cleaning up the contamination. Although in theory this principle is attractive, it is very difficult to implement as an environmental protection policy. Enforcement is weak, coverage of polluters incomplete, and questions about whether money can ever compensate for environmental degradation all prevent environmental regulations from reducing carbon dioxide emissions quickly enough to avoid a global tipping point. The *tipping point* concept is itself debated in the scientific community. It means that once the atmosphere reaches a certain level of carbon dioxide, there will be no way to turn back to lower levels.

Carbon dioxide emissions are a global concern, with the United States leading the world in emissions. Scientists have been examining ways to sequester carbon dioxide under the ground or sea, as is being done by the state oil company of Norway. Many carbon tax advocates feel that the only way to reduce carbon dioxide emissions quickly enough to prevent the tipping point from arising is to tax carbon dioxide emissions. Sustainability advocates also like carbon taxes because they could help move society away from nonrenewable fuels like gas and oil. Critics point out that many of the results sought could be approached by reducing subsidies for nonrenewable energy sources like oil. Politically, a policy of reducing subsidies to nonrenewable energy sources has simply not happened, argue carbon tax proponents, and results are needed. Critics also say that the same results could be attained by use of a cap-and-trade program. Carbon proponents argue that traditional cap-and-trade programs apply only to generators of electrical energy, which account for only about 40 percent of carbon emissions; that carbon taxes are more transparent and easily understood than cap-and-trade arrangements between industry and government; and that carbon taxes will get quicker results in terms of decreased carbon dioxide emissions.

Background

The first country to put a tax on atmospheric carbon dioxide emissions was Sweden in 1991, followed by Finland, Norway, and the Netherlands. Initially applied to combustion-only point sources over a certain size, the tax was equivalent to about $55 (U.S.) per ton of carbon dioxide emitted. Norway has extended the tax to offshore oil and gas production. They found it effective in spurring industry to find cost-efficient ways to reduce carbon dioxide emissions. The European Union began implementing a carbon tax in 2007 and intended to steadily increase the rate over time.

In early June 2010, a panel consisting of representatives of 12 federal agencies provided its climate change analysis to aid lawmakers with deciding what to include in climate change legislation. They estimated that each additional metric ton of carbon dioxide emitted into the earth's atmosphere inflicts at least $21 in damage to agricultural productivity, human health, property damage from flooding, and the value of ecosystem loss due to climate change. According to the U.S. Environmental Protection Agency, the United States contributed 5.6 billion tons of carbon dioxide in 2008. That amounts to $117.6 billion in environmental damage today.

Carbon taxes have been controversial at the city, state, and federal levels. Some environmentally conscious communities have passed their own carbon tax, such as Boulder, Colorado. Boulder's carbon tax applies only to electricity generation and is based on a dollar figure per ton of carbon emitted into the atmosphere. Advocates in Boulder claim the tax will raise almost $7 million over five years.

Direct environmental regulation of carbon by municipalities could occur rapidly in the United States, especially if state legislatures or Congress do not develop a carbon tax policy. Currently, about 330 U.S. mayors are signed on to the U.S. Mayors Climate Protection Agreement. Carbon tax debates could occur in many different localities. Many state legislatures are being exposed to the idea of carbon taxes. In the United States, Massachusetts has formed a study commission on tax policy and carbon emissions reduction. Advocates for a carbon tax say that it will reduce U.S. oil dependence. Nonrenewable energy sources account for much of the U.S. carbon waste stream. Natural gas is responsible for 22 percent, coal burning for 36 percent, and petroleum products for 42 percent of U.S. annual carbon emissions. If the carbon tax is enough to change pollution behavior, then advocates claim it will generate a large amount of revenue, some estimating between $55 billion and $500 billion a year depending on the carbon tax program.

Proposed Legislation

Carbon taxes have made their way into congressional discussions and legislative proposals to reduce pollution. In April 2007 Democratic representatives Peter Stark from California and Jim McDermott from Washington introduced the Save Our Climate Act, a bill to reduce global warming by taxing carbon in fossil fuels. It remains with the

House Ways and Means Committee, which has been discussing this proposal since its introduction. Stark is the primary sponsor of the legislation, with three cosponsors: McDermott and democrats Bob Filner of California and Raul Grijalva of Arizona.

The bill would charge $10 per ton of carbon in coal, petroleum, or natural gas. It would increase by $10 every year until U.S. carbon emissions decreased by 80 percent of 1990 levels. Stark maintains that this is the level most scientists claim is necessary to slow rapid climate change. Some environmental groups do not endorse it, some influential newspaper columnists do endorse it, and many are leery of anything called a tax. Accepting the concept of carbon taxes requires acceptance of global warming and climate change. These are environmental controversies in themselves. In the United States, they are also political controversies. Because of that, taxes for anything environmental may have difficulty getting enough support to become law.

There is now academic discussion of a global carbon tax. Economists focus on carbon taxes in some of their environmental and policy analyses. It is likely that many nations would find this appealing. Huge issues of enforcement in rich and poor nations would prevent this. No nation likes another nation to tax its citizens in their own country. Nonetheless, the small economics controversy of carbon taxes as environmental policy is receiving serious attention.

Conclusion

Carbon taxes shift environmental policy into the tax policy regulatory arena. Taxes are very strong policy devices and are used here to change the behavior of polluters. As such there are distributional impacts and other taxes to consider. Some have wondered, why not just prohibit carbon dioxide emissions or regulate them out of existence? Carbon taxes do appeal to the basic "polluter pays" principle but suffer some of the same problems. Who does the polluter pay? Who gets the benefit of the new carbon tax revenue? These questions fall into the same category of questions as avoiding carbon taxes by subsidizing renewable energy or withdrawing nonrenewable energy subsidies (for oil companies, for example). The political will of regulatory agencies and federal courts to tax carbon dioxide emissions is not strong enough to reduce the power of industry. The fundamental question is whether carbon taxes will actually reduce carbon dioxide emissions.

See also **Carbon Offsets; Climate Change; Emissions Trading; Fossil Fuels; Global Warming; Sustainability (vol. 1)**

Further Reading

The Carbon Tax Center, "Why Revenue-Neutral Carbon Taxes are Essential." http://www.carbontax.org

Carraro, Carlo, and Domenico Siniscalco, *The European Carbon Tax: An Economic Assessment*. New York: Springer, 1993.

Dellink, Rob B., *Modeling the Costs of Environmental Policy: A Dynamic Applied General Model.* Northampton, MA: Edward Elgar Publishing, 2005.

EcoNeutral, "Neutralize Your Footprint." www.econeutral.com

FitzRoy, Felix, and Elissaios Papyrakis, *An Introduction to Climate Change Economics.* Sterling, VA: Earthscan, 2010.

Handley, James, "Government Panel Estimates Cost of CO_2 Pollution: $21/t and rising." June 3, 2010. http://www.carbontax.org/blogarchives/2010/06/03/govt-panel-estimates-cost-of-c02–20t-and-rising.

Library of Congress, "Bill Summary & Status, 111th Congress (2009–2010). H.R. 594. Save Our Climate Act of 2009." http://thomas.loc.gov/cgi-bin/thomas

Park, Patricia D., *Energy Law and the Environment.* Boca Raton, FL: CRC Press, 2002.

Serret, Ysé, and Nick Johnstone, *The Distributional Effects of Environmental Policy.* Northampton, MA: Edward Elgar Publishing, 2006.

CHILDHOOD ASTHMA AND THE ENVIRONMENT

Robert William Collin

Recent increases in childhood asthma have created controversies about the environmental causes. Children living in urban areas are especially vulnerable to asthma because of the high number of pollutants and allergens in their environment. Others argue that exposure to pesticides in the air and food helps cause it.

Asthma is a disease that affects breathing. It attacks and damages lungs and airways. Asthma is described as like breathing through a straw; it can be a serious threat to persons of any age. Childhood asthma attracts attention because of its potential developmental consequences. Asthma is characterized by partially blocked airways. It can occur periodically or reactively, and attacks or events can range from mild to severe. The nose, sinuses, and throat can become constricted. Breathing becomes difficult and is accompanied by coughing and wheezing. During an asthma event, the muscles around the breathing passages constrict. The mucous lining of the airways becomes inflamed and swollen. This further constricts air passages. These episodes can last for hours or days. They can be terrifying events for parents and children. Childhood asthma and its disproportionate impact on vulnerable populations is one of the foundational issues of environmental justice in the United States.

Causes of Asthma: Foundations of a Controversy

Asthma is a complex disease with many causes, some known, some contested, and some unknown. Each one presents its own issues. Environmental causes are controversial because they represent a broad, catchall category. Controversies about science, industry trade secrets, and unequal enforcement of environmental laws merge with a very high level of citizen concern. There is an emerging role for public health experts and advocates

in urban environmental policies around childhood asthma. There is a greater incidence of asthma among children in U.S. inner cities. Asthma often accounts for a large number of emergency room visits, especially in poor areas underserved by medical insurance. Hospitals, health care administrators, and health insurance corporations are all very interested in the causes of asthma. Employers and educators know that a number of days in school or on the job are lost because of asthma. They also have an interest in understanding the causes. Some stakeholders may fear liability for causing asthma. They have a strong interest in not being named as among those responsible.

Environmental Triggers for Asthma

The policy question posed now is what triggers an asthma attack. Others, such as public health experts and advocates, ask what can prevent it. They are concerned that focus on a trigger overlooks vectors of causality as opposed to last exposure.

Indoor Air Contamination

Dust mites, cockroach droppings, animal dander, and mold are among the environmental conditions that may cause asthma. Exposure to allergens alone may induce the onset of asthma. Exposure to secondhand tobacco smoke is also a contributor. Certain insecticides may also be triggers. Some researchers consider pesticides to be a preventable cause of asthma in children. The quality of indoor air in homes may be made worse by the increasing use of synthetic materials in the form of carpets, carpet glues, curtains, and building materials. There is concern that as these materials age, they release potentially dangerous chemicals. Manufacturers of these items strongly contest any conclusion that their products may be among the causes of childhood asthma. However, concern about release of toxins from synthetic materials has affected market trends in these products. Because many household products are believed to be possible causes of asthma, the marketplace or commerce in these products has become a point of discussion. Large big-box retailers like Walmart are accommodating these consumer concerns about causes of asthma that consumers can control, such as dust mites and animal dander.

Outdoor Air Pollution

There is strong evidence from longitudinal studies that ambient air pollution acts as a trigger for asthma events among persons with this condition. Truck and automotive exhaust is a big part of the polluted air, especially in densely populated urban areas. Combined with industrial and municipal emissions and waste treatment practices (such as incineration), the quality of the air becomes so degraded that the total polluted air load in some urban and nearby suburban areas is a threat to the health of children. It threatens them with the development of asthma due to long-time exposure and poses the risk of initiating an attack at any time.

Children in the City

It is clear that the increasing severity of asthma in the United States is concentrated in cities among children who live in poverty. Children, as compared with adults, are especially vulnerable to air pollution and other toxic exposures, partly because they have more skin surface relative to total body mass. According to Frederica Perera, director of the Columbia Center for Children's Environmental Health:

> They consume more water, more food, and more air per unit body weight than adults by far. Today's urban children are highly exposed to allergens, such as cockroach and rodent particles, and pollutants, such as diesel exhaust, lead and pesticides. And these elements affect them even before they are born. Preliminary evidence shows that increased risk of asthma may start as early as in the womb before birth.

The small particles of soot "are very easily breathed into your lungs, so they really exacerbate asthma," say Peggy Shepard, executive director of the West Harlem Environmental Action, Inc., adding that she believes these diesel particles may also play a role in cancer. Shepard says that New York City is second in the nation when it comes to the amount of toxins released in the air, preceded only by Baltimore.

David Evans, who runs the Columbia Center's "Healthy Home, Healthy Child" intervention campaign, maintains that cockroach particles pose a problem for urban areas nationwide. He says, "Simple housecleaning won't solve the problem, because the cockroach residue tends to be present in many city neighborhoods." According to the Harlem Lung Center, childhood asthma rates increased 78 percent between 1980 and 1993. And according to the Columbia Center, there are an estimated 8,400 new cases of childhood cancer each year nationwide.

Disparities in Asthma Care

Access to health care is an important aspect of the asthma controversy. Many low-income groups do not have health insurance and tend to use the emergency room instead of visits to a primary care physician. An asthma attack often presents that necessity. Language and cultural differences can make a tense medical situation worse. Even with regular medical intervention, differences in asthma treatment by race, gender, and class make this issue an ongoing one, and disparities in the burden and treatment of African Americans and Puerto Ricans with asthma are well documented.

Among African Americans and Puerto Ricans, rates of asthma, hospitalization, and death are higher compared with those of whites. This is especially true among children. Different medicines are prescribed and used for different groups. Research shows that the use of long-term medications to control asthma is lower among African Americans and Puerto Ricans. Cost may be a factor, especially if there is no insurance coverage.

Access to medical care is affected in many ways. There are shortages of primary care physicians in minority communities, and also issues of trust about the role and usefulness of medications.

Costs of Asthma

Asthma is a cause of death among U.S. children. There are 247 deaths each year due to childhood asthma. It is the leading cause of hospital admission for urban children. Asthma is also the leading cause of days of school missed. It is estimated that about 30 percent of acute episodes of childhood asthma are environmentally related.

Air pollution is considered a major cause of asthma, and asthma and public health are major regulatory justifications for clean air laws. The U.S. Environmental Protection Agency (EPA) has estimated the cost savings that resulted from the Clean Air Act. For the years 1970–1990, the EPA calculated that the annual monetary benefits of reductions in chronic bronchitis and other respiratory conditions was $3.5 billion. That is, this figure represents health care costs that would have been incurred if there were no clean air regulations. There are other costs too, of course. Also, if there were no costs and if people with asthma could get free and accessible medical attention, the cost of human resources necessary to handle the scope of the problem could be large. Additional childhood asthma benefits are projected by the EPA to accrue over the years 1990 to 2010, assuming full implementation of the Clean Air Act Amendments of 1990.

Conclusion

This controversy is very salient among communities and public health professionals. Schools, hospitals, nursing homes, and other places where vulnerable people live hold strong views but lack resources. Emissions from traffic, industry, and heating and cooling systems are now part of the U.S. urban landscape. Environmentalists note that the law does not cover all the pollutants and is not enforced equally. Advocates of environmental justice consider childhood asthma as proof of at least one disproportionate environmental impact. Asthma generally has resulted in a substantial increase in the sales and profits of pharmaceutical companies. This controversy is structural in that it pits public health concerns against industrial emissions and is therefore of deep significance.

There will be many ongoing issues. The environmental controversies around childhood asthma will focus on air pollution and use other controversial methods such as ecosystem risk assessment or cumulative risk assessment. Childhood asthma is a big part of the new inclusion of cities by the EPA. In the early 1990s, the visionary EPA administrator Carol Browner reduced the level of particulate matter allowed in urban air districts, effectively banning many diesel and leaded gas vehicles. She started an urban air toxics policy task force to help engage cities and the EPA, along with several other successful policy initiatives. Exxon and other oil companies responded with

FACTS ABOUT ASTHMA

Childhood asthma is an environmental controversy with much saliency in metropolitan areas. The following summary is from the Center of Children's Health and the Environment at the Mount Sinai School of Medicine:

- In 1993–1994, approximately four million children aged 0–14 reported asthma in the preceding 12 months.
- Self-reported prevalence rates for asthma among children ages 0–4 increased by 160 percent from 1980 to 1994; rates among children ages 5–14 increased by 74 percent.
- Asthma was selected as the underlying cause of death among 170 children aged 0–14 in 1993.
- Among children ages 5–14, the asthma death rate nearly doubled from 1980 to 1993.
- Over 160,000 children aged 0–14 are hospitalized for asthma annually.
- Among all age groups, children aged 0–4 had the highest hospitalization rate in 1993–1994 (49.7 hospitalizations per 10,000 persons).
- The cost of illness related to asthma in 1990 was estimated to be $6.2 billion, according to a 1992 study. Of that amount, inpatient hospital services were the largest medical expenditure for this condition, approaching $1.6 billion.

Many more suffer asthma without medical care. There may be rural, institutional, and pockets of urban populations that lack public health resources. Many citizens do not have health care coverage for asthma.

letters to their accounts about the new air pollution regulations. In an unusual step, the American Lung Association and other public health organizations responded in support of the EPA. As U.S. environmental policy matures into comprising all environments, including cities, continued controversy in the area of public health can be expected. Battle lines were drawn then and are much deeper now. Asthma is worse, there is greater consensus that air pollution not only triggers but also causes asthma, there are large documented environmental injustices by race and class, and there is a large overall push for sustainability.

See also **Air Pollution; Children and Cancer; Cumulative Emissions; Environmental Justice**

Further Reading

Akinbami, Lara J., *The State of Childhood Asthma in the United States, 1980–2005.* Hyattsville, MD: U.S. Department of Health and Human Services, 2006.

Bernstein, I. Leonard, *Asthma in the Workplace.* New York: Marcel Dekker, 1999.

Cherni, Judith A., *Economic Growth versus the Environment: The Politics of Wealth, Health, and Air Pollution.* London: Palgrave Macmillan, 2002.

Christie, Margaret J., and Davina French, *Assessment of Quality of Life in Childhood Asthma.* London: Taylor and Francis, 1994.

Institute of Medicine, *Clearing the Air: Asthma and Indoor Air Exposures.* Washington, DC: National Academies Press, 2000.

Naspitz, Charles K., *Pediatric Asthma: An International Perspective.* London: Taylor and Francis, 2001.

CHILDREN AND CANCER

Robert William Collin

A core controversy is whether environmental stressors, such as pollution and pesticides, are responsible for the increase of childhood cancers.

Background

The cause of cancer is always a controversial topic. The rate of cancer among U.S. children has been rising since the 1970s. The mortality rate, however, has decreased since the 1980s. There are scientifically established causes of childhood cancer. Family history of cancer, radiation exposure, genetic abnormalities, and some chemicals used to treat cancer are known causes of childhood cancer. The plethora of new chemicals in food, air, water, clothing, carpets, and the soil is strongly suspected as being part of the cause of cancer in children. The scientific model of causality struggles with proof of the cause of childhood cancer and engages fierce environmental controversy in the process. Some aspects of this controversy have moved into the courtroom. There science struggles both with causality by a certain chemical and liability of a specific person (the defendant).

Childhood Cancer Facts

According to the National Cancer Institute (http://www.cancer.gov/cancer topics/types/childhoodcancers), the following set of statistics measures the expanding parameters of childhood cancer.

A newborn child faces a risk of about 1 in 600 of developing cancer by 10 years of age. The rate of increase has amounted to almost 1 percent a year. From 1975 to 1995 the incidence of cancer increased from 130 to 150 cases per million children. During this time mortality due to cancer decreased from 50 to 30 deaths per million children. In the United States, cancer is diagnosed each year in about 8,000 children below age 15. Cancer is the most common form of fatal childhood disease. About 10 percent of all deaths in childhood are from cancer. There are big differences between types of cancer, and researchers investigate these differences because it may lead them to the

environmental stressors. Leukemia was the major cancer in children from 1973 to 1996. About one quarter of all childhood cancer cases were leukemia. Brain cancer, or glioma, increased nearly 40 percent from 1973 to 1994. The overall rate of central nervous system tumors increased from about 23 per million in 1973 to 29 per million children in 1996. These two forms of cancer account for most of the disease in children. Lymphomas are the third most diagnosed category of childhood cancer; they are diagnosed in about 16 percent of cases. There are different kinds of lymphomas; for some categories childhood incidence rates have decreased and for others they have increased. (For example, non-Hodgkin's lymphomas increased from 8.9 per million children in 1973 to 11 per million in 1996.)

According the U.S. Environmental Protection Agency (EPA), Office of Children's Health protection (http://Yosemite.epa.gov/ochpweb.nsf/content/childhood_cancer.htm), there are substantial differences by age and type of cancer:

> Rates are highest among infants, decline until age 9, and then rise again with increasing age. Between 1986 and 1995, children under the age of 5 and those aged 15–19 experienced the highest incident rates of cancer at approximately 200 cases per million children. Children aged 5–9 and 10–14 had lower incidence rates at approximately 110 and 120 cases per million children.

The EPA also reports some ethnic differences in childhood cancer rates:

> Between 1992 and 1996, incidence rates of cancer were highest among whites at 160 per million. Hispanics were next highest at 150 per million. Asian and Pacific Islanders had an incidence rate of 140 per million. Black children had a rate of 120 per million, and Native Americans and Alaska Natives had the lowest at 80 per million.

Also, different types of cancer affect children at different ages. According to the EPA:

> Neuroblastomas, Wilms' tumors (tumors of the kidney) and retinoblastoma (tumors in the eyes) usually are found in very young children. Leukemias and nervous system cancers are most common through age 14; lymphomas, carcinomas, and germ cell and other gonadal tumors are more common in those 15–19 years old.

Scientific Model: Struggling to Keep Up with Policy

The last century saw a drastic lowering of infectious disease rates due to strong public health measures and education. In the United States and other industrialized nations, this has been accompanied by a general rise in systemic, whole-body, or immune system breakdowns. Cancer is considered a possible result of a whole-body immune system

breakdown. About 100,000 chemicals are released into the environment. Less than 2 percent of them are tested for public health impacts. The tests are done in constrained laboratory conditions, generally considering a given chemical safe if less than one half or one quarter of the mice exposed to it die. The scientific model requires the isolation of an extraneous possible cause or intervening variables. It ignores cumulative, synergistic, and antagonistic real-world chemical interactions that are the exposure vectors of chemicals for children. The actual biological vulnerability of the affected humans is not taken into account. A developing fetus is much more vulnerable to harm by cancer-causing chemicals. It takes a newborn child at least a year to develop an efficient blood-brain barrier, which works to protect the brain while the central nervous system develops. Before this barrier begins to function fully, the infant could be exposed to whatever the mother is exposed to. There is research indicating that children of people who work with dangerous chemicals have an increased frequency of childhood cancer. The problem of childhood cancer is a driving force behind many other environmental controversies. The real-world number of cancer cases in industrialized nations has increased overall, although it depends on demographics and type of cancer.

Environmental scientists, from government, industry, and environmental groups, have been laboring for many years to unravel some of the exposure vectors to children with cancer and sometimes to endocrine disruption. Many chemicals are much more dangerous when mixed with other chemicals. Children are especially vulnerable to many of the chemicals used around the house, such as cleaners and pesticides. Research has found over twice the risk of brain cancer for children exposed to household insecticide. Some studies have found even higher rates of risk. These early studies focus on just one type of cancer from a few known exposure vectors. The cumulative and synergistic emissions of the past are becoming the cancer risks of the present.

Costs Are Very High: Who Pays?

Health care in the United States is another controversy altogether. Access is difficult, and cancer treatments are very expensive. The annual overall incidence of cancer is 133.3 per million for children under 15 years old in the United States. There were 57.9 million children under 15 years of age in the United States in 1997. About 7,722 cases of childhood cancer are anticipated each year, which is very close to the 8,000 reported. Experts have estimated the cancer-related costs for children to be about $4.8 billion. There are other costs. Psychological stress, transportation, time with medical staff and insurers, and time as a health care provider are all also costs.

The cost of treatment of childhood cancer is controversial in that it is generally too much for an average family to afford. This plays into other controversies about the health care system. If the family cannot afford it or if the insurance company requires

it, they file a lawsuit against the most likely cause of the cancer. The litigation hurdles of proof and the burden of proof are often insurmountable obstacles.

What Environmental Stressors Cause Childhood Cancers?

The following brain cancer figures, from the American Cancer Society, show a disturbing trend in the number of cases being found:

1940: 1.95 per 100,000 population
1945: 2.25 per 100,000
1950: 2.90 per 100,000
1955: 3.40 per 100,000
1960: 3.70 per 100,000
1965: 3.85 per 100,000
1970: 4.10 per 100,000
1975: 4.25 per 100,000

These figures show a steady increase for all industrialized nations. To many public policy makers the cancer rates in these countries implicate chemicals used there. Similar increases are occurring in children. Many chemical manufacturing industries would contest this association, stating that in most cases the scientific evidence neither proves nor disproves causality.

Chemicals and Childhood Cancers

As discussed previously, a major form of childhood cancer is brain cancer. Which chemicals have been linked to brain cancers? Chemical workers are often the most exposed to a particular chemical. They make it, store it, and transport it. Sometimes they also use it. Epidemiologists follow the exposure vector to workers of various suspected chemicals. Brain cancer risks follow workers exposed to chemicals used in vinyl and rubber production, oil refineries, and chemical manufacturing plants. Another study by the National Cancer Institute of 3,827 Florida pest-control operators found they had approximately twice the normal rate of brain cancer. Pesticide exposure increases risks for childhood cancer. Because adult workers had higher rates of brain cancer when exposed to these chemicals in their occupations, researchers surmise that because children are more vulnerable, they may get more brain cancer when exposed to these chemicals.

Some chemicals used in pesticides concern public health officials more than others. Chlordane is one of high concern. Research on children who developed brain cancer after their homes were treated with pesticides led officials to this chemical. The debate over this chemical has moved to litigation in many cases. Chlordane is a high-risk chemical for brain cancer. It is a fat-soluble compound, and such compounds are absorbed into the nervous system, which develops rapidly in children from birth to age 5.

Legal chlordane use was stopped in the United States in April 1988. However, the law was and is poorly enforced. One reason it was made illegal was its long-term killing power, which also made it an effective pesticide. The degree to which a chemical persists in the environment is one measure of how dangerous it could be to the environment and to humans. Chlordane is such a persistent chemical that it is still being detected today. Tests of more than 1,000 homes performed by federal agencies found that approximately 75 percent of all homes built before 1988 show air contamination with chlordane. They also found that 6 to 7 percent of such homes are suspected of being over the maximum safe levels for chlordane exposure in residential housing set by the National Academy of Sciences, a limit that some have argued is too low.

Research into this controversial area has increased. Authors Julia Green Brady, Ann Aschengrau, Wendy McKelvey, Ruthann A. Rudel, Christopher H. Schwartz, and Theresa Kennedy from the Boston University School of Public Health in Massachusetts published "Family Pesticide Use Suspected of Causing Child Cancers, I" (1993). In this peer-reviewed article the relationship between family pesticide use and childhood brain cancer was closely examined. The researchers compared brain cancer rates for families using pesticides and those not using pesticides. They concluded that the chemicals did increase the risk of cancer. Significant positive associations with brain cancer rates were observed in families using regular household supplies and pest-control chemicals. Bug sprays for different kinds of insects, pesticide bombs, hanging no-pest strips, some shampoos, flea collars on dogs and cats, diazinon in the garden or orchard, and herbicides to control weeds in the yard were all found by the authors to be part of the chemical vector increasing the risk of brain cancer. These results are still being disputed. Some argue that the sample sizes are very small in some of these studies and the results may not be typical. Unanswered questions fueling the uncertainty that underlies this controversy concern the total range of effects of chemicals. What happens when they combine in water or sunlight over time? Are there possible generation-skipping effects? What happens to the typical child when exposed to these chemicals in their normal environment? What constitutes their regular environment? Does air pollution pose another cancer-causing vector for children? The evidence is fairly conclusive now that secondary tobacco smoke can cause health risks. Originally, tobacco smoking and chewing were considered good for your health. The danger they posed was a conclusion resisted tenaciously by the tobacco industry. Secondary smoke was highly controversial and remains contested when local land-use ordinances restricting the use of tobacco products come into play.

Conclusion

Childhood cancer is a traumatic event for all involved. The costs are very high. Right now it is difficult to overcome scientifically based burdens of proof in litigation. Families

with children with cancer often seek legislative recourse to the incidents they believe caused the cancer. Children, as growing beings, naturally absorb more from the environment than adults. The increase in most childhood cancer rates is a cause for alarm for environmentalists and public health officials. Industry tries to cap environmental liabilities through legislation and internal agency advocacy. This all means that this controversy will intensify as more chemicals are linked with childhood cancers.

See also **Cumulative Emissions; Environmental Justice; Pesticides**

Further Reading

Brady, Julia Green, Ann Aschengrau, Wendy McKelvey, Ruthann A. Rudel, Christopher H. Schwartz, and Theresa Kennedy, "Family Pesticide Use Suspected of Causing Child Cancers, I." *Archives of Environmental Contamination Toxicology* 24, no. 1 (1993): 87–92.

Davis, Devra Lee, *The Secret History of the War on Cancer.* New York: Basic Books, 2007.

Hayman, Laura L., ed., *Chronic Illness in Children: An Evidence-Based Approach.* New York: Springer, 2002.

Steingraber, Sandra, *Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment.* New York: Vintage Books, 1998.

CLIMATE CHANGE

Robert William Collin and Debra Ann Schwartz

The consequences of dramatic climate change are uncertain in terms of specific impacts. This uncertainty is everyone's concern. Some general effects, such as rising ocean levels, are known. Specific weather changes that are not yet known could occur abruptly. Many scientific, legal, and international debates are emerging with respect to this issue.

What Is Climate?

Climate is the total of all weather conditions over time.

The difference between climate and weather is specific: climate is average regional weather typically based on a 30-year period. Whether and to what extent there are seasonal changes and when they start and end determines climate. Amount of rainfall, hours of sun, prevailing wind patterns, and temperature are parts of what we call climate. The global warming controversy focuses on the speed of change in climate and the extent humans cause it and can remedy it.

When is climate change too fast or too abrupt? Differing viewpoints exist, however the National Oceanic and Aeronautics Administration (NOAA) notes that shifts historically taking centuries or longer that begin to occur more rapidly, in periods as short as decades, are characterized as "abrupt." Scientists also have couched climate change in terms of effects on ecosystems and social systems and their ability to adapt to climatic shifts.

CAN TECHNOLOGY SOLVE ABRUPT CLIMATE CHANGE?

Environmentalists contend that technology has created many of the pollution problems that are now demanding solutions. Engineers claim that technological intervention solves problems related to increased human population affecting the climate. Human climatic impacts have been labeled accidental. People's faith in technology to solve environmental problems has led to the belief that technological engineering could be used to slow the rate of global warming and the abruptness of climate change. This type of engineering is called geoengineering.

Scientists have offered several untested and controversial ideas about how to slow the rate at which climates are warming and cooling globally to lesser or greater extents that recorded. One idea is to put thin, controllable shields on the edge of earth's atmosphere to block the sun. Other notions include reflective balloons, reflective space dust, iron dust (which absorbs carbon dioxide), reflective roofs and roads, and reforestation. Australian engineers have floated the idea of *terraforming* by building a big pipe that would pump ozone into the stratosphere and plug the hole in the earth's ozone layer, identified many years ago. Another idea is to technologically solve the problem by increasing the amount of light reflected back into space by earth. This approach involves having oceangoing vessels spray saltwater mists into the air to form strong reflective ocean clouds, thus increasing the *albedo,* the amount of solar light absorbed or reflected by water, land, ice, and so on.

Many of these engineering concepts suffer from cost issues, possible unintended impacts like pollution and acid rain, and lack of information and computational power. The response to these concerns is that cost determines priority, and as climatic changes affect more of the earth, more possible solutions are expected to be tried.

Science and Forecasting

Underlying the climate change issue is the matter of contested science. The scale is so large that until the advent of computers, climate change science was theoretical. Now there is consensus among scientists and engineers that climate change is driven by greenhouse gases. There is agreement, for example, that the sun provides about 344 watts of energy per square meter on average. Much of this energy comes in the part of the electromagnetic spectrum visible to humans. The sun drives the earth's weather and climate and heats the earth's water and land surfaces. The earth radiates energy back into space through the atmosphere. Much of this is reradiated energy. Atmospheric gases—including water vapor, carbon dioxide, methane, and particulate matter—exist in a very delicate and dynamic balance. They act like glass windows, letting heat in and holding in some of it to create what is called a *greenhouse effect.* Scientists can now observe atmospheric conditions further in the past by examining deeply embedded ice cores from old ice. Doing so has helped them to isolate the effects of human development on the atmosphere. This research also helped scientists pinpoint large catastrophic natural events in earth's history.

Since as late as 1800, atmospheric concentrations of carbon dioxide have increased by almost 30 percent. With more carbon dioxide and warmer air, more moisture develops in the atmosphere and increases warming trends. Methane concentrations have more than doubled. Nitrous oxide concentrations have risen by about 15 percent. Increases on this scale have enhanced the heat-trapping capability of the earth's atmosphere. They have blurred the windows of the greenhouse. The effect is melting ice caps, rising ocean levels, and in general a warmer planet.

Some scientists contend that human activities are the main reason for the increased concentration of carbon dioxide. They argue that human impacts have affected the usual balance of plant respiration and the decomposition of organic matter, causing them to release large amounts of carbon dioxide. Fossil fuels are responsible for about 98 percent of U.S. carbon dioxide emissions, 24 percent of methane emissions, and 18 percent of nitrous oxide emissions. Increased agribusiness, deforestation, landfills, incinerators, industrial production, and mining also contribute a large share of emissions. In 1997, the United States emitted about one fifth of total global greenhouse gases. This estimate is based on models and industry self-reporting.

Environmental regulation and monitoring are relatively new and dominantly exists only in developed countries. Environmentally regulated countries still allow large amounts of chemicals into the land, air, and water without complete knowledge of short- or long-term ecological risks and impacts. It is difficult to assess these impacts because not all the emissions from humans are regulated. Large amounts of unregulated industrial emissions, municipal emissions, agricultural emissions, and commercial and residential emissions remain unregulated and are a source of uncertainty. Each category represents future stakeholders in a growing controversy. Because so much is still unknown regarding the scale and scope of emissions, it is impossible to predict environmental impacts such as synergistic and cumulative risks. Over time, with an increasing human population and more extensive monitoring, the level of uncertainty about the effects of climate change may decrease. Fear of liability for contamination figures into this equation. Uncertainty about the best policies to follow to mitigate climate changes continues. Many contend mitigation will require better knowledge about actual emissions. The policy need for this information and the stakeholder fear of liability and increased regulation will fuel the first fires of the climate change policy wars. The current state of knowledge is highly dependent on modeling and weather data.

The Case of Methane

Methane remains in the atmosphere for approximately 9 to 15 years. It is more than 20 times as effective for trapping heat in the atmosphere than carbon dioxide. Former U.S. Vice President Al Gore and others conclude that large pockets of methane at the north and south poles will produce more methane than anticipated as the poles warm. The projected consequence is a greatly increased rate of global warming and climate change.

It is estimated that 60 percent of global methane emissions are related to human activities. This gas is emitted during the drilling, refining, use, and transport of coal, natural gas, and oil all over the world. Methane emissions also result from the decomposition of organic wastes. Wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, nonwetland soils, volcanic eruptions, and wildfires are natural sources of methane. Some sustainable dairy farms in Vermont began defraying expensive heating costs by collecting and burning methane from cow manure. Now farmer in almost every U.S. state do the same. Methane also collects in municipal solid waste landfills, which are near capacity. Sometimes landfills burn off the methane gas, which can form in a landfill. Methane is a primary constituent of natural gas and an important energy source all over the world.

Other Emissions Affecting Climate Change

As human populations and industrialization increase, several emissions also will increase. Greenhouse gases are expected to escalate substantially. The climate changes that occur could be dramatic. Many experts generally expect

1. Land temperature to increase more than ocean temperature
2. Northern hemisphere sea ice to retreat substantially
3. Sea level to rise more than a meter over the next several hundred years
4. A sharp reduction in the overturning circulation of the North Atlantic ocean
5. Substantial reductions in midcontinent summer soil moisture (about 25 percent)
6. Increases in the intensity of tropical hurricanes and/or typhoons.
7. Sharp increases in the summertime heat index (a measure of the effective temperature level a body feels on a humid day) in moist, subtropical areas

Additional impacts have been speculated upon, including natural disasters and power conflicts between nations.

Climate Data Availability

Climate data provide the basics for characterizing various statistics for temperature, pressure, wind, water amounts, cloudiness, and precipitation as a function of geographical location, time, and altitude. Such data provide invaluable information on the natural variability of climate, ranging from seasons to decades. These data sets have led to important understandings of how the climate system works. They also provide valuable information on how ice ages and warm epochs interact with climatic changes. For example, for meteorological purposes, thousands of observation points collect information continuously for weather forecasting. Most of this information is important to research on longer-term climate change. Climate change data are more expansive than weather forecasting data sets. Some climate change data not usually included in weather data sets are vertical velocity, radiative heating/cooling, cloud characteristics (*albedo*), evaporation,

and properties of critical trace species such as particles containing sulfate and carbon. Weather data sets do not provide information on the vegetative cover and its role in governing surface water evaporation. The ocean's currents, waves, jets, and vortices are important climatic measurements that are not included in the usual weather data sets.

Weather often determines human settlement patterns, and as world population increases, the unstable and sometime contradictory computer modeling of climate changes lends itself to controversy. Weather forecasts can also determine financial lending patterns in agricultural areas as well as economic development based on industrial manufacturing. This expands the role of industrial stakeholders from one of being regulated by various international and state governments to one of engagement with the accuracy of the models.

Climate Changes and Their Effects on Animals

The earth is warming and the climate is changing. Climate changes faster than an ecosystem does. Some species in the food chain will be affected first and, unless they evolve or move, will become extinct. Robins, for example, were recently sighted in the Arctic for the first time. Species such as grizzlies and polar bears may move to new territories and interbreed more frequently. Rapidly increasing ice melt is decreasing polar bear habitat and sometimes preventing the bears from getting to the seals they hunt. Consequently, polar bears have moved inland in search of food. More ecosystem aspects will be tested as climate change speeds.

Where Are the Animals Going? Current Research

Vast ecosystem changes cause plants and animals to migrate. They can also cause migrating animals to alter their genetically inbred routes of travel. In the year 2000, scientists from 17 nations examined 125,000 studies involving 561 species of animals around the globe. These investigators found that spring was beginning on average six to eight days earlier than it did 30 years ago. Regions such as Spain saw the greatest increases in temperatures. (This contradicts some climate change models, which forecast the greatest temperature changes at the north and south poles.) Spring season began up to two weeks earlier in Spain. The onset of autumn has been delayed by an average of three days over the same period. Changes to the continent's climate are shifting the timing of the seasons. There is a direct link between rising temperatures and changes in plant and animal behavior.

Recent research examined 125,000 observational series of 542 plants and 19 animal species in 21 European countries from 1971 to 2000. The results showed that 78 percent of all leafing, flowering, and fruiting was happening earlier in the year, while only 3 percent was significantly delayed. When species that depend on each other change at different rates, a breakdown in the food web could result. Current research is based only on indicator species, not entire ecosystems.

WATER AND CLIMATE CHANGE

The National Research Council on April 22, 2010, released a study noting that the earth's oceans currently absorb more than 1 million tons of carbon dioxide per hour. That is contributing to an already unprecedented increase in acid levels in the oceans, threatening to change ecosystems supporting all life in salt water, including red snapper, shrimp, sea bass and every form of life that depends on coral reefs. At the same time, desalinization is taking off around the globe as a means of coping with declining supplies of fresh water. The cost to desalinate has gone down, according to news reports focusing on dollars and cents.

Water is increasingly viewed as the visible face of climate change. Evaporation and drought have been amplified on every continent, along with rising coastlines and increased flooding from Bangladesh to the U.S. Midwest. At the same time, innovative reforestation projects are under way to restore the land and prevent further desertification. Peruvian conservationists, for example, have created a partnership with Heifer International, a nongovernmental organization, to that end.

Further suggesting how water might play the most prominent role in global environmental politics in the next 15 years, Ecuador has become the first nation to emphasize the "rights of nature" in its constitution. Furthering this trend, law schools in the United States have begun adjusting their curricula to train future lawyers in understanding and acknowledging nature's rights.

Global warming's glacial melt is allowing two harvests per year in areas of Tibet where only one was possible before. However, behind that prosperity is the well-supported fear the glacier will disappear, along with the water supply. Measurements show that the glacier is melting at a faster rate than it was 100 years ago. Villagers in Nepal also wonder about their water source. The headwaters of many rivers come from the glaciers of Tibet, which have been called the Third Pole. It is attractive to China at least in part for the fresh water Tibet promises. As reported in *National Geographic* magazine, China has less water than Canada and 40 times more people. China currently aims to build 59 reservoirs north of Tibet to capture glacial melt.

In Africa, the issue is lack of clean water. Medical clinics there report that almost half the illnesses they treat relate to waterborne diseases. In the United States, residues from industry and agriculture run down into the nearest creek if it has not been dried up first by damming, diversion, and irrigation practices. However, a suite of new laws in California mandates water conservation and attempts to restore delta ecosystems there.

Conclusion

Scientific and political controversies about climate change will increase. International environmental responsibilities and choices and rising local concern will raise some inconvenient environmental issues. Industrialization has had and continues to have a large environmental impact, perhaps affecting climate stability. Some of the nations most benefiting from industrialization are now debating policies about sustainability. They ask poorer nations to refrain from using the same fuels that began their own economic

POLITICS AND THE COPENHAGEN ACCORD

In December 2009 the United Nations Climate Change Conference in Copenhagen, Denmark, brought about a nonbinding agreement; this was criticized by the Bolivian delegation as having been reached in an antidemocratic, nontransparent way and as offering no relief to countries most vulnerable to the effects of climate change. In response to what is commonly known as the Copenhagen Accord, Bolivian President Evo Morales hosted the week-long World People's Conference on Climate Change and Mother Earth in April 2010. Indigenous activists and government representatives from 150 nations attended. During the same week, the U.S.-led Major Economies Forum on Energy and Climate was held in Washington, D.C. There, 17 nations responsible for the bulk of global greenhouse gas emissions held closed-door talks. Both gatherings aimed to plan strategies that would direct the 2010 United Nations Climate Change Conference set for December in Cancún, Mexico.

The Copenhagen Accord, whose legality is debated, acknowledges that the notion of global warming and cooling is supported by unassailable science. Although setting limits on emissions was central to the Copenhagen talks, no commitments resulted. China sought to cut carbon dioxide emissions by as much as 45 percent below 2005 levels by 2020. India wanted them cut by only 25 percent, a figure more agreeable to most of those in attendance. Kazakhstan, Iceland, Japan, Monaco, New Zealand, and Russia sought the strictest reductions, hovering around 25 percent below 1990 levels. The United States proposed to reduce emissions to 17 percent below 2005 levels by 2020, 42 percent by 2030, and 83 percent by 2050. In contrast, countries including Costa Rica and the Maldives sought such reductions by 2021 and 2019 respectively.

During the talks and after, China was blamed by developed nations for preventing a better outcome. Others blamed the lack of a binding deal on conservatism in the U.S. Senate and on the part of President Barack Obama. India, China, and other emerging nations were accused of cooperating at Copenhagen only to block attempts to restrict carbon emissions and thereby protect their economic growth. China currently depends on coal for its industry and is facing a severe shortage of fresh water as well.

News analyses of the Copenhagen gathering considered the accord a failure resulting from global recession and conservative domestic pressure in the United States and China. Despite financial woes, the unenforceable accord pledged that the United States would provide $30 billion to the developing world during 2010–2013, increasing this amount to $100 billion per year by 2020. This "fast-start funding" is intended to help poor countries take steps to adapt to climate change. It was central to the forum talks in Washington, D.C. The reality for Fiji, for example, is that glacial melt is shrinking this island nation. Its government is looking for nations who would be willing to accept its people as their land shrinks. Such nations did not get what they wanted in Copenhagen. A parallel can be drawn here to consideration for Louisiana's Cajun culture, which is fast losing neighborhood land to rising salt water in freshwater bayous throughout the area. As a result of this rise, baseball diamonds where children played one year were under water the next.

In mid-April 2010, U.S. President Barack Obama directed the country's National Aeronautic and Space Administration (NASA) to investigate sending astronauts to an asteroid as a training ground for Mars missions. In February 2010, *National Geographic* magazine considered terraforming Mars to make it habitable, noting that we have learned how to warm a planet.

development under free market capitalism. This is the so called North–South debate. Poorer nations want the quality-of-life improvements of free markets and do not like interference from richer nations. This aspect of the issue is global.

The rate of climate change is a continuing element of this discussion. While NASA officials ponder terraforming, concerns about water press toward scarcity. An August 2007 study by NASA climatologist James Hansen predicted that oceans could rise substantially more than predicted. In 2009 Hansen, director of NASA's Goddard Institute for Space Studies in New York and a professor at Columbia University, contended that the two giant reservoirs on the Colorado River—Lake Powell and Lake Mead—had fallen to 50 percent of capacity. These lakes provide water to tens of millions of westerners in the United States. Hansen argued that to stop the cycle we must reduce carbon dioxide emissions to below 350 parts per million from today's 387 parts per million, thus opposing his many colleagues who support stabilizing them at 450 parts per million.

Hansen's argument is based on paleoclimate data published in 2008, showing that the last time atmospheric carbon dioxide concentrations were this high, the earth was ice-free and the sea level was far higher than it is today. His 2007 study argues that because of positive feedback loops in the atmosphere, global warming events could cause oceans to rise much more quickly than predicted. It projected that by 2100, oceans could rise hundreds of feet instead of the smaller predictions of two to four feet by conservative climate-watch organizations. Three years later, Hansen had not changed his position. Recent ice quakes in Greenland, ice core samples from the poles indicating rates of melting, and the rapid release of methane from thawing permafrost all give greater credibility to this still controversial prediction. There will be more controversies surrounding the accuracy of the measurements of climate changes themselves, their rate of change, and their environmental impacts. NASA recorded 2009 as the warmest year on record, but in the following year questions were raised about the validity of climate data generated by a United Nations scientific panel. (The questions were subsequently largely laid to rest.)

Climate change is a local issue as well as a global one. As the push for sustainability rises to a policy level in richer nations, they confront an industrial past. Large programs of waste cleanup and assessments are begun. Environmental regulations are tightened to include all environmental impacts. Local communities begin to adopt environmental principles, like the precautionary principle, in their land-use laws. Climate change

concerns may be creating a greater environmental consciousness and in that way create a supportive environment for policies like sustainability and 100 percent waste cleanup.

See also **Air Pollution; Coal; Cumulative Emissions; Fossil Fuels; Global Warming; Sustainability (vol. 1)**

Further Reading

Archer, David, *The Climate Crisis: An Introductory Guide to Climate Change.* New York: Cambridge University Press, 2010.

Clowney, David, and Patricia Mosto, *Earthcare: An Anthology of Environmental Ethics.* Lanham, MD: Rowman & Littlefield, 2009.

Condon, M. et al., *Urban Planning Tools for Climate Change Mitigation.* Lincoln, NE: Institute of Land Policy, 2009.

Cox, John D., *Climate Crash: Abrupt Climate Change and What It Means for Our Future.* Washington, DC: Joseph Henry Press, 2005.

DiMento, Joseph F. C., and Pamela Doughman, eds., *Climate Change: What It Means for Us, Our Children, and Our Grandchildren.* Cambridge, MA: MIT Press, 2007.

Fagan, Brian M., *The Great Warming: Climate Change and the Rise and Fall of Civilizations.* New York: Bloomsbury Press, 2008.

Hansen, James E., *Storms of My Grandchildren: The Truth about the Coming Climate Catastrophe and Our Last Chance to Save Humanity.* New York: Bloomsbury Press, 2009.

Hulme, Michael, *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity.* New York: Cambridge University Press, 2009.

CLINICAL TRIALS AND SCIENTIFIC ETHICS

Jill A. Fisher

When new drugs and medical devices are developed, they need to be tested on humans to ensure their safety and effectiveness. Clinical trials—the tightly regulated and carefully controlled tests of pharmaceuticals in large groups of people—raise many ethical challenges. Some of these challenges revolve around the individuals participating in research: Are people being coerced? Are the clinical trials designed appropriately? Are researchers meeting their obligations and behaving ethically?

Other challenges are more difficult to address because they are embedded in existing institutional practices and policies: Is it ethical to include or exclude certain groups as human subjects in clinical trials based on their nationality, income, or health insurance status? What are the responsibilities of researchers to human subjects and to communities after the clinical trials have concluded? Still further challenges arise as the locations of clinical trials shift from university medical centers to profit-based research centers and as more studies are outsourced to developing countries. The history of abuses to human subjects in the United States has profoundly shaped the range of debates regarding ethical research practices and federal regulation of the research enterprise.

Deception and Coercion

Until the 1970s, deception and coercion of human subjects were common strategies used to enroll and retain individuals in medical research. A landmark case was the U.S. Public Health Service's four decades of research on syphilis in rural African American men in Tuskegee, Alabama. In the Tuskegee study, the subjects were told that they were being treated for "bad blood"—the local term for syphilis—even though they were actually not receiving any treatment at all. Instead, the U.S. Public Health Service was interested in watching syphilis develop in these men until their deaths so as to gain an understanding oft the natural course of the disease when left untreated. At the start of the study in the 1930s, there were no cures for syphilis. During the course of the research, however, penicillin was identified as an effective treatment. Still, the men did not receive treatment, nor were they told that they could be cured.

In response to the public outcry following an exposé on Tuskegee as well as other unethical uses of human subjects, the U.S. Congress passed the National Research Act of 1974. It established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, a group charged with outlining ethical principles to guide research and recommending ways to regulate it.

Informed Consent

By the beginning of the 1980s, the U.S. government had enacted regulations to protect human subjects from potential research abuses. These regulations requires that all participants provide their informed consent before participating in any study, that the risks and benefits of each study be analyzed, and that all research protocols be reviewed and overseen by external reviewers. Today's institutional review boards (IRBs) are mandated by this regulation. IRBs are research review bodies at universities and hospitals and in the private sector; they exist to ensure that researchers are following regulations, obtaining informed consent, and conducting ethical and scientifically rigorous research.

The requirement of informed consent is the primary means of protecting against the deception and coercion of human subjects. Researchers are required to provide detailed information about their studies, particularly about any potential risks and benefits, to all participants in the study. The participants or their guardians are required to sign the consent document confirming that they have read and understand the risks and benefits of the trial. Informed consent is meant to ensure that human subjects' participation in clinical research is voluntary. Unfortunately, informed consent has become largely procedural in many research contexts. Although the research trials are often long and complex, human subjects are often informed about the study and prompted for their consent only once, prior to the start of the trial. In response, many bioethicists are calling for a new configuration of informing participants and attaining their consent, a configuration that would treat informed consent as a process that is ongoing throughout the length of a clinical trial.

Although a revision of informed consent may certainly be necessary, it cannot address larger structural issues that must also be examined. Human subjects participate in research for many reasons. Some participate in the belief that research can provide a cure for illness. Others participate because they have limited or no health insurance and can gain access to medical care while participating in the trial. Still others participate for the sake of income in the form of study stipends. These reasons often take precedence over the specific details contained within an informed consent form. In fact, there is currently much debate about the extent to which human subjects should be remunerated for their participation in clinical trials. Because cash incentives may be coercive, many bioethicists argue that the amount of money human subjects receive should cover only those costs—such as transportation and parking, babysitters, time off from work—that are incurred from participation. In any case, the current regulatory environment is not structured to respond to the complex reasons that human subjects might have for enrolling in clinical trials.

Ethics of Study Design

The ethics of clinical trials extend beyond the voluntariness of human subjects' participation. The designs of the clinical trials themselves is also subject to scrutiny for ethical concerns. Nowhere is this more obvious than in discussions about the use of the placebo—or an inert sugar pill with no inherent therapeutic properties—in clinical research. Placebos are valuable tools in clinical research because they provide a controlled comparison to the treatment or therapy being studied. In other words, clinical trials can compare how human subjects' conditions change based on whether they received the treatment under investigation or a placebo. This protocol design becomes problematic because there are instances when it might be considered unethical to give human subjects placebos. Some illnesses should not be left untreated regardless of the scientific merit of the study design. In the case of other illnesses, there are many safe and effective products for treatment already on the market, and some argue that clinical trials should measure investigational products against these other treatments in order to provide the best possible care to human subjects.

In order to determine what is ethical, the medical establishment uses the principle of "clinical equipoise" to guide decisions about clinical trials. Within this framework, the design of clinical trials is considered ethical when the various arms of the study—investigational product, old treatment, placebo, and so on—are considered clinically equivalent. In other words, if researchers have no evidence that the new product is better than a placebo or an older treatment, then it is ethical to compare those groups. If, however, there is evidence that one product might be superior or inferior to another, then it is no longer considered ethical to give human subjects a product known to be inferior.

Like many ethical principles, equipoise can be mobilized to guide the design of clinical trials. There are limitations, however, in its application. Importantly, the definition of

what evidence counts to achieve equipoise is fairly loose, and the majority of clinical trials that are conducted are done using a placebo. Part of what shapes decisions regarding equipoise and even informed consent is the broader context of clinical trials, especially their funding sources. Since 1990 the pharmaceutical industry has shifted the location of clinical trials from university medical centers to private-sector settings, such as private practices and for-profit clinical research centers. Although the bulk of most clinical research continues to take place in the United States, the pharmaceutical industry is outsourcing more and more studies to the developing world, including countries in Africa, Asia, eastern Europe, and Latin America.

Ethical Considerations of Globalization

Globalization over the past half century became an important development of economic growth. Proponents stress its benefits in terms of prosperity, while critics highlight the resulting economic disparities and worker exploitation, particularly in low- and middle-income countries. In the realm of clinical trials, pharmaceutical companies and device manufacturers made globalization a core component of their business models. This move raises important questions about the economics and ethics of clinical research. Further questions surface concerning the translation of trial results to clinical practice. At the cutting edge of this quagmire are three main concerns: Who benefits from the globalization of clinical trials? What is the potential for research subject exploitation? Are trial results accurate and valid and can they be extrapolated to other settings?

Some contend the future of the pharmaceutical and device industries is predicated on coming to terms with these questions. Does it sit squarely on the shoulders of the medical research community to voluntarily ensure the ethical and scientific integrity of clinical research globally, or is a law or international policy required? Medical ethicists have suggested that a comprehensive review, perhaps commissioned by the Institute of Medicine or the World Health Organization, is necessary to reach international consensus on these matters.

Conclusion

Both within the United States and abroad, the pharmaceutical industry relies on disenfranchised groups to become human subjects because of their limited access to medical care, their poverty, or their desperation for a cure for illnesses such as HIV/AIDS and other infectious diseases requiring treatment. As a result, the pharmaceutical industry's practices regarding human subjects can sometimes be highly exploitative. The ethical dilemma that is created concerns the distribution of risks and benefits. Those who are most likely to enroll in clinical trials as human subjects are the least likely to benefit from the results of that research. Debates are currently ongoing about the need for researchers to provide care after the close of a clinical trial in order to make those relationships more reciprocal. Clinical trials create many ethical challenges, ranging from

the ethical treatment of individual human subjects to the design and implementation of clinical studies and the distribution of risks and benefits of research within society. The design and conduct of clinical trials has been tightly regulated for several decades, but the changing profile of health care and developments in medical research give rise to new questions. Furthermore, as clinical research continues to grow as a profit-driven industry, ethical questions become increasingly challenging. Although there may not be straightforward or standardized answers to these questions, addressing them should be as important as the medical research that generates the need for clinical trials.

See also **Medical Ethics; Off-Label Drug Use; Prescription Drug Costs (vol. 1)**

Further Reading

Applebaum, P. S., and C. W. Lidz, "The Therapeutic Misconception." In *The Oxford Textbook of Clinical Research Ethics,* ed. E. J. Emanuel et al. New York: Oxford University Press, 2006.

Faden, R. R., and T. L. Beauchamp, *A History and Theory of Informed Consent.* New York: Oxford University Press, 1986.

Glickman, S.W., et al., "Ethical and Scientific Implications of the Globalization of Clinical Research." *New England Journal of Medicine* 360, no. 8 (2009): 816–823.

Halpern, S. A., *Lesser Harms: The Morality of Risk in Medical Research.* Chicago: University of Chicago Press, 2004.

Holm, S., "The Concise Argument." *Journal of Medical Ethics* 36, no. 2 (2010): 65.

Jones, J. H., *Bad Blood: The Tuskegee Syphilis Experiment.* New York: Free Press, 1981.

Lorenzo, C., et al., "Hidden Risks Associated with Clinical Trials in Developing Countries." *Journal of Medical Ethics* 36, no. 2 (2010): 111–115.

Petryna, Adriana, *When Experiments Travel: Clinical Trials and the Global Search for Subjects.* Princeton, NJ: Princeton University Press, 2009.

Shah, S., *The Body Hunters: How the Drug Industry Tests Its Products on the World's Poorest Patients.* New York: New Press, 2006.

U.S. National Institutes of Health, "Understanding Clinical Trials." 2007. http://clinicaltrials.gov/ct2/info/understand

CLONING

Heather Bell

To clone is simply to produce an identical copy of something. In the field of biotechnology, however, *cloning* is a complex term referring to one of three different processes. DNA cloning is used to produce large quantities of a specific genetic sequence and is common practice in molecular biology labs. The other two processes, therapeutic cloning and reproductive cloning, involve the creation of an embryo for research or reproductive

purposes, respectively, and have raised concerns about when life begins and who should be able to procure it.

DNA Cloning

DNA cloning, often referred to as recombinant DNA technology or gene cloning, is the process by which many copies of a specific genetic sequence are produced. By creating many identical copies of a genetic sequence through a process known as amplification, researchers can study genetic codes. This technology is used to map genomes and produce large quantities of proteins and has the potential to be used in gene therapy.

The first step in DNA cloning involves the isolation of a targeted genetic sequence from a chromosome. This is done using restriction enzymes that recognize where the desired sequence is and "cut" it out. When this sequence is incubated with a self-replicating genetic element, known as a cloning vector, it is ligated into the vector. Inside host cells such as viruses or bacteria, these cloning vectors can reproduce the desired genetic sequence and the proteins associated with it. With the right genetic sequence, the host cell can produce mass quantities of protein, such as insulin, or can be used to infect an individual with an inherited genetic disorder to give that person a good copy of the faulty gene.

Because DNA cloning does not attempt to reproduce an entire organism, there are few ethical concerns about the technology itself. Gene therapy, however, which is currently at an experimental stage because of safety concerns, has raised ethical debates about where the line falls between what is normal genetic variation and what is a disease.

Therapeutic Cloning

Somatic cell nuclear transfer (SCNT) is the technique used in both therapeutic cloning and reproductive cloning to produce an embryo that has nuclear genetic information identical to an already existing or previously existing individual.

During sexual reproduction, a germ cell (the type capable of reproducing) from one individual fertilizes the germ cell of another individual. The genetic information in these germ cells' nuclei combine, the cell begins to divide, and a genetically unique offspring is produced. In SCNT, the nucleus of a somatic cell (the type that makes up adult body tissues) is removed and inserted into a donor germ cell that has had its own nucleus removed. Using electrical current or chemical signals, this germ cell can be induced to begin dividing and will give rise to an embryo that is nearly identical to the individual from which the nucleus came rather than being the result of a combination of two parent cells. This "clone" will not be completely identical to the parent. A small number of genes that reside within mitochondria (small organelles within a cell that convert energy) will have come from the germ cell donor. Therefore the embryo will

have nuclear genetic information identical to that of the parent somatic cell but mitochondrial genetic information that is identical to that of the germ cell donor.

SCNT is controversial because it involves the artificial creation of an embryo. Many people who feel that life begins at conception take issue with the technology because a germ cell is induced to divide without first being fertilized.

Similar ethical concerns are raised about therapeutic cloning, also referred to as embryo cloning, which is the production of embryos for the purpose of research or medical treatment. The goal of this procedure is to harvest stem cells from an embryo produced by SCNT.

Stem cells are useful because they are not yet differentiated. Not all cells in the human body are the same; a muscle cell, a bone cell, and a nerve cell have different structures and serve different functions. They all originally arise from stem cells, however, which can be used to generate almost any type of cell in the body. With further research, stem cells may be used to generate replacement cells that can treat conditions such as heart disease, Alzheimer's, cancer, and other diseases where a person has damaged tissues. This technology might provide an alternative to organ transplantation, after which the donated organs are frequently rejected by the receiver's body because the cells are recognized as not being the person's own. With stem cells generated from a person's own somatic cells, rejection would not be an issue.

Because the extraction of stem cells destroys the embryo, people who feel that life begins with the very first division of a cell have ethical concerns about this type of research. Before this technology progresses, it will be important for society to define the rights of an embryo (if rights can be defined) and decide whether embryos can be manipulated for the treatment of other people.

Reproductive Cloning

Reproductive cloning is the process by which a nearly identical copy of an individual is created. In one sense, this type of cloning already occurs in the natural world. Although sexual reproduction of plants and animals involves the genetic information of two individuals combining to create a unique hybrid, asexual reproduction occurring in plants does not involve the combination of genetic information. In this case, an identical copy of the plant is naturally produced. Artificial reproductive cloning has enabled the cloning of animals as well. In this procedure, SCNT is used to create an embryo whose nuclear DNA is identical to that of another individual. This embryo is then cultivated until it is ready to be inserted into the womb of a surrogate parent. The embryo is gestated, and eventually a clone is born. The first mammal to be successfully cloned and raised to adulthood was Dolly, a sheep, in 1997.

Since Dolly, many other animals have been cloned, including goats, cows, mice, pigs, cats, horses, and rabbits. Nevertheless, the cloning of animals remains very difficult and inefficient; it may take over 100 tries to produce a single clone successfully. Previous

attempts have also shown that clones have an unusually high number of health concerns, including compromised immune function and early death.

Conclusion

The inefficiency of current cloning technology, along with the compromised health of clones, raises further ethical concerns about the artificial creation of life and the manipulation of individuals for the benefit of others.

The American Medical Association (AMA) has issued a formal public statement advising against human reproductive cloning. The AMA maintains that this technology is inhumane because of both the inefficiency of the procedure and the health issues of clones. The President's Council on Bioethics worries that cloning to produce children creates problems surrounding the nature of individual identity as well as the difference between natural and artificial conception.

Although some individuals and groups have claimed to have successfully cloned a human, these claims have not been substantiated. In the United States, federal funding for human cloning research is prohibited, and some states have banned both reproductive and therapeutic cloning.

See also **Eugenics; Genetic Engineering; Human Genome Project; Medical Ethics; Reproductive Technology; Stem Cell Research**

Further Reading

American Medical Association, http://www.ama-assn.org

Fritz, Sandy, ed., *Understanding Cloning.* New York: Warner Books, 2002.

Haugen, David M., et al., eds., *The Ethics of Cloning.* Detroit: Greenhaven Press, 2008.

Klotzko, Arlene Judith, *A Clone of Your Own? The Science and Ethics of Cloning.* New York: Cambridge University Press, 2006.

The President's Council on Bioethics, http://www.bioethics.gov/reports

Shmaefsky, Brian, *Biotechnology 101.* Westport, CT: Greenwood Press, 2006.

Wilmut, Ian, et al., "Viable Offspring Derived from Fetal and Adult Mammalian Cells." *Nature* 385, no. 6619 (1997): 810–813.

COAL

Hugh Peach

Coal is essentially a kind of "compacted sunlight." It is a combustible material derived from leafy biomass that has absorbed energy from the sun and has been compressed in the earth over geologic time. It is usually found in seams associated with other sedimentary rock. Historically, Earth went through the Carboniferous age about 350

to 290 million years ago. During this period, Earth was like a hothouse, with a higher average temperature than today and a steamy atmosphere that caused plants to grow rapidly. Using sunlight and moving through their life cycles, layer upon layer of plants accumulated on the surface of the earth. These plant materials gradually developed into peat bogs, and many of the bogs became covered with other material and were subjected to pressure over geologic time, eventually turning into coal. The result today is that we find an abundance of coal, often associated with sedimentary rock such as limestone, sandstone, and shale.

What Is Coal?

From a human perspective, coal is a nonrenewable resource. From a geological perspective, coal could be renewed from sunlight and plants over eons, but this would require another carboniferous (hothouse) era, which would not be very congenial to humans.

Peat is the first stage in the development of coal. It has very high water content and is not a good fuel if actual coal is available. When peat is compressed, it first becomes lignite or "brown coal." With further compression, brown coal becomes bituminous coal (soft coal). Finally, with both heat and high compression, we get anthracite or "hard coal," which has the least moisture content and the highest heat value.

Effects of Mining and Storage

Coal mining directly affects the environment. Surface mining produces waste materials, including destroyed trees and plants, but also substantial amounts of waste rock. When a small mountain is stripped for coal, waste rock is often dumped in valleys, and this can generate acid contamination of water. Surface mining also generates considerable dust (the technical name for this is "fugitive dust emissions"). Underground mining occurs largely out of sight but can result in large areas of subsidence. The generation of methane (and other gases) and acid mine drainage into local aquifers can also occur. After coal is mined, the next step is called coal beneficiation. In this step, coal is cleaned of some of the impurities that have interpenetrated it because of surrounding rock formations and geologic activity over several million years. This generates waste streams, including coal slurry and solid wastes that must go somewhere. Then, the cleaned coal has to be stored, handled, and transported. Handling and transportation produce more fugitive dust emissions.

There are examples of both surface and underground mining in which great care has been taken to mitigate these and other environmental effects. However, the effects on local environment can be severe, as shown in many other cases. Coal combustion byproducts (CCBs) are the waste material left over from burning coal. CCBs include fly ash, bottom ash, boiler slag, and flue gas desulfurization (FGD) material. Between 30 and 84 percent of this material can be recycled into other products such as concrete,

road construction material, wallboard, fillers, and extenders. The rest is waste, which may include toxic elements that can cause human health problems if they are inhaled (as dust in the wind) or if they get into groundwater.

Emissions from coal combustion include water vapor (steam), carbon dioxide, nitrogen, sulfur, nitrogen oxides, particulate matter, trace elements, and organic compounds. The sulfur dioxide released may transform into sulfur trioxide (sulfuric acid). Nitrogen oxides contribute to the formation of acid rain. Particulate matter causes lessened visibility and, if the particles are breathed, can have serious health consequences, including asthma, decreased lung function, and death. Carbon dioxide is a major component of greenhouse gases. A certain balance of greenhouse gases is necessary to keep the planet habitable, but too much greenhouse gas contributes strongly to global warming. *Carbon sequestration* is the term for capturing carbon dioxide and storing it somewhere.

Carbon sequestration is the attempt to mitigate the buildup of carbon dioxide in the atmosphere by providing means of long-term storage—for example, by capturing carbon dioxide where coal is burned and attempting to inject it into the earth, the oceans, or growing biomass. The questions to ask about proposed methods of carbon sequestration are the following: How long will it stay sequestered before it is released back to the atmosphere? And will there be any unintended side effects of the carbon dioxide in the place in which it is to be put? We also need to be aware of what is sometimes called "silo thinking"—that is, trying to solve an important problem without being aware of interactions and linkages. Right now, fish stocks are declining and ocean coral is dissolving because the oceans are becoming more acidic. Putting huge additional amounts of carbon dioxide in the oceans might help to make power plants "cleaner," but it would more quickly kill off many forms of aquatic life.

Coal Quality

Despite some of these effects, however, coal will continue to be the dominant fuel used to produce electricity because of its availability and lower price compared with other forms of electricity generation. At the same time, carbon dioxide released in the burning of coal is a large contributor to rapid global warming. This is a contradiction without an easy solution. If efficiency, widespread availability, and lowest cost are the relevant criteria, then coal is the best fuel. If we choose in terms of these standard market criteria, we will also move quickly into global warming and climate change. The physical root of the problem is primarily one of scale: a small planet with a small atmosphere relative to the size of the human population and its demand for the use of coal.

It is a simple fact that the use of electricity is increasing all over the planet. The intensity of electricity use is growing gradually, year by year, throughout the economically developed portions of the planet, particularly because of the ubiquitous use of computers and the placing of increasing machine intelligence into other business and consumer devices. The poor and so-called backward regions of the planet continue to electrify,

largely in response to their penetration by multinational corporations as an aspect of globalization. At the same time, intermediately developed countries with rapidly growing economies, such as India and China, are experiencing the emergence of strong consumer economies and rapid industrial development. For the near and intermediate future, these (and other) major countries will require substantial numbers of new central generating stations. Meaningfully lowering the demand for electricity would require major changes in our patterns of life, such as moving away from a consumer society and business system and a reorientation of housing and cities to maximize the use of passive solar energy, as well as a transition to local DC power systems in homes.

Historically, the high-quality heat developed from good-quality coal is responsible for much of the success of the industrial revolution in the Western economies. The transition from the stink of agricultural life and the stench and illnesses of early industrial cities to clean, modern living—characterized by the mass production of consumer goods—is highly dependent on clean electricity. Coal kept us warm, permitted the manufacture of steel products, and gave us much of our electricity over the last century. With only a little coal, natural gas, and oil, the human population of the planet would have been limited largely to the possibilities of wind and sun power; history would have developed very differently, and the human population of the planet would be only a small percentage of its size today. It is important to know that doing without coal, gas, and oil would have the reverse implication for the carrying capacity of the planet. At root, the issue is not only the historic and continuing advancement of civilization but also the size and quality of life of populations that are dependent on coal, natural gas, and oil. That is why securing these resources is so integral to the trade and military policies of nations.

Two Levels of Paradox

Whereas coal has been a wonderful resource for human development and the multiplication of the human population, there is a paradox: electricity, which is so clean at the point of use, is associated with extreme carbon loading of the atmosphere if it is generated from coal. This contradiction originally existed only at a local level. As an illustration, Pittsburgh, a major industrial center in America, was long known as a dirty coal and steel town, with unhealthy air caused by the huge steel plants, the use of coal for electricity generation, and the general use of coal for home and business heating in a climate with long cold winters. The air was often dirty and the sky burdened with smoke and dust.

This was initially taken as a sign of economic vigor and prosperity. Pittsburgh's air was cleaned up in the early 1950s by the requirement of very high smokestacks and a shifting away from nonindustrial uses of coal for public health and civic betterment reasons. The tall smokestacks, however, while providing a local solution, simply transferred the problem to places downwind. This is a reality of pollutants: they do not go away; they

go somewhere else. Places downwind of the midwestern power plants (such as New York City) experienced more unhealthy air days, and lakes in the mountains downwind began to die because of acid rain. This is the local level of the paradox—clean electricity and efficient large-scale industry produce local or regional pollution problems because of the use of coal.

Similarly, the global level of the paradox is that the use of coal is responsible for significantly fouling the planet, leading to a common future filled with the multiple disasters associated with global warming. Just a few of these experiences we have to look forward to include the submergence of coastal areas, loss of ice at the poles, loss of snowpack on mountains, invasions of species from other areas against weakened natural species, dramatic food shortages, and an increasing number of riots in poor areas where the rising cost of food cannot be met within the local structure of wages—not a war of "all against all" but one of increasing numbers of persons increasingly shut out of the economic system against those still protected by remaining institutional arrangements or by wealth. As resources contract, in addition to the problems of food shortages and new outbreaks of disease, the resulting income gap will likely signal a return to the social inequalities of the Victorian era.

THE TENNESSEE COAL ASH SPILL: IS THERE SUCH A THING AS CLEAN COAL?

On December 22, 2008, a mountain of toxic sludge rising 65 feet in the air and covering 100 acres, which had been accumulating for half a century, burst the dike holding it in. It flowed coal ash packed with poisons—including arsenic, lead, and selenium—over 300 acres of beautiful countryside, moving homes off their foundations and overtaking houses, crops, and sensitive ecosystems. It filled a river.

The sludge is coal ash, also called fly ash. It consists of the concentrated hazardous waste that is left over after power plants burn coal to generate electricity. Coal-fired power plants produce about 130 million tons of fly ash every year—enough to fill a line of boxcars from the United States to Australia—according to Eric Schaeffer, who heads the activist group Environmental Integrity Project.

Some called the 5.4 million cubic yards of ash that spilled from the Tennessee Valley Authority's Kingston Fossil Plant "the Exxon Valdez of coal ash spills." The disaster generated fast-paced questions about whether government regulations for coal ash are strict enough. Until the unstoppable BP-Deepwater Horizon oil gush in the Gulf of Mexico in May 2010, the Tennessee coal ash spill held status as the largest industrial accident in U.S. history. The result is an environmental and engineering nightmare. Cleanup is estimated at $1 billion by the U.S. Environmental Protection Agency, which is overseeing the effort. It is expected to take years if not a lifetime. The spill shows that coal is anything but clean.

Population Needs

An underlying variable, of course, is the size of the human population. If we were facing a few new power plants and limited industrial production, the myth of unlimited resources that underlies conventional economics would be approximately true. It would not matter much if we fouled a few localities if the human population were one-hundredth or one-thousandth of its current size and the planet were covered with vibrant meadows and ancient forests.

With a much smaller human population, the fouling of the planet would be less of an immediate problem. But given the size of the human population, the need is for several hundred new power plants. The demand through market forces for consumer goods, industrial goods, and electricity, particularly from the portion of the human population engaged in unsustainable modern market economies, drives the need for hundreds of new central power plants in the immediate to intermediate future.

Industry in India and China, in particular, is taking off along a huge growth curve, different from but in many ways similar to that of the industrial revolution in the West. In our current situation, coal is, on the one hand, the preferred market solution because it is relatively inexpensive, is a widespread and still abundant resource (in contrast to gas and oil), and can provide power through electricity generation that is clean at the point of use. The problem at the global level is the size of the planet and the limited atmosphere in relation to the size of human population. The scale of what is required will generate far too much pollution for the planet to handle in ways that keep the planetary environment congenial to humankind.

It is possible, however, to talk about "clean coal." This term has two meanings. First, some types of coal emit less carbon into the atmosphere when burned, and some deposits of coal contain much less foreign material than others. Cleaner coal is more expensive than dirty coal. Second, the phrase is a slogan of the coal industry pointing toward the concept of capturing gas emissions from coal burning. As a slogan, it serves the purpose of conveying the image of a future in which commercial-scale coal-burning power plants would emit no carbon dioxide. Research on this problem is ongoing, but there are no such plants at the present time.

The U.S. FutureGen project is on hold after federal funding from the Department of Energy was pulled. The questions to ask about the promised "clean coal" future are these: What is the scale of transfer of carbon dioxide that would be required (if it could be captured)? What would be done with the massive quantities that would have to be sequestered, and would this have any unintended consequences?

Coal is less expensive than other fuels, but this is due in part to the free market system in which the social and environmental costs of coal are treated as what economists like to call "externalities." That is, these costs are left for other people—for regional victims of pollution—and for global society to bear. Several systems have been proposed to transfer all or part of these costs to companies that burn massive amounts of coal, such as electric

utilities. In fact, a sector of the electric utility industry is currently campaigning to have some form of carbon trading or carbon tax imposed. It is generally expected that this will occur in the not-too-distant future, given that many industry leaders would like to resolve the ambiguity and uncertainty of what form these costs will take and to speed the new system into place. This may substantially increase the cost of coal as an energy resource.

Conclusion

Coal has had and continues to have a major role in the advancement of civilization. It is currently more abundant and more easily available than other major fuels. Its concentrated energy (high heat content) permits us to create steel products. Without coal, natural gas, and oil, the human carrying capacity of the planet would be a small percentage of the current human population. Yet there is a contradiction inherent in the massive use of coal and in the building of hundreds of new generating stations that depend on coal because carbon release will hasten global warming and also produce other environment effects that are not helpful to human life. This is a contradiction without an easy solution.

See also **Air Pollution; Childhood Asthma and the Environment; Fossil Fuels; Global Warming; Land Pollution**

Further Reading

Brune, Michael, *Coming Clean: America's Addiction to Oil and Coal.* San Francisco: Sierra Club Books, 2008.

Freese, Barbara, *Coal: A Human History.* Cambridge, MA: Perseus, 2003.

Heinberg, Richard, *Blackout: Coal, Climate, and the Last Energy Crisis.* Gabriola Island, BC: New Society Publishers, 2009.

Kilroy, Johnny, "EPA Proposes New Rule to Regulate Coal Ash." Tenthmil. May 5, 2010. http://tenthmil.com/campaigns/policy/epa_proposes_new_rule_to_regulate_coal_ash#ixzz0q7dCdaoh

McKeown, Alice, "The Dirty Truth about Coal." Sierra Club monograph. http://www.sierraclub.org/coal/dirtytruth/coalreport.pdf

Miller, Bruce G., *Coal Energy Systems.* San Diego, CA: Elsevier, 2005.

Shogren, Elizabeth, "Tennessee Spill: The Exxon Valdez of Coal Ash?" National Public Radio. December 31, 2008. http://www.npr.org/templates/story/story.php?storyId = 98857483

"Toxic Tsunami," *Newsweek* (July 18, 2009). http://www.newsweek.com/2009/07/17/toxic-tsunami.html

Ward, Kenneth, Jr., "Mining the Mountains: Tennessee Coal Ash Spill Highlights Broad Gaps in Government Oversight." *Charleston Gazette* (December 30, 2008). http://wvgazette.com/News/MiningtheMountains/200812290514

Ward, Kenneth, Jr., "EPA Backed Off Tougher Coal-Ash Proposal Amid Industry Complaints, White House Review." *Charleston Gazette* (May 7, 2010). http://blogs.wvgazette.com/coaltattoo/2010/05/07/epa-backed-off-tougher-coal-ash-proposal-amid-industry-complaints-white-house-review

CUMULATIVE EMISSIONS: IMPACTS AND RISKS

Robert William Collin and Debra Ann Schwartz

Since the mid-1850s the results of the industrial revolution have polluted the environment. When industrial manufacturing processes garner raw materials, they produce a product and by-products. These by-products are often wastes and chemicals. They have grown enormously since industrialization first began. In many urban areas, industrial emissions have accumulated for 150 years. These emissions are mixed with other waste streams as they percolate through soil or volatilize into the air. This can result in accumulating impacts to the environment, almost all negative.

Emissions that affect the environment can bioaccumulate in all species, including humans. Bioaccumulation of some chemicals, such as metals, is known to be very harmful and therefore risky to humans. Emissions, impacts, and risks fall under the collective label of *cumulative effects.* No one industry wants to be liable for the emissions of others. Many communities are concerned about the eroding health of their families. Environmentalists want cumulative effects to be accounted for in environmental impact statements. Policy development is weak, yet every day these cumulative effects increase. This is a young controversy that is growing and will drive and divide many other environmental policies.

Several reports have highlighted the importance of understanding the accumulation of risks from multiple environmental stressors. These reports, as well as legislation such as the Food Quality Protection Act of 1996 (FQPA), urged the EPA to move beyond single chemical assessments and to focus, in part, on the cumulative effects of chemical exposures occurring simultaneously. In 1999, the EPA's Risk Assessment Forum began development of EPA-wide cumulative risk assessment guidance.

Cumulative Effects

Cumulative risk means the combined risks from aggregate exposures to multiple agents or stressors. Several key points can be derived from this definition. First, cumulative risk involves multiple agents or stressors, not just one. Second, agents or stressors do not have to be chemicals. They may be, but they may also be biological or physical agents that cause something necessary to decline, such as habitat. Third, the actual risks from multiple agents or stressors require the researcher to determine how the risks interact. It also means an assessment that merely lists each chemical with the corresponding risk but without considering the other chemicals present; this does not provide insight into the full impact the combinations. Cumulative risk may generate interest in a wider variety of nonchemical stressors than do traditional risk assessments.

The EPA Approach

EPA assessments generally describe and, where possible, quantify the risks of adverse health and ecological effects from synthetic chemicals, radiation, and biological stressors.

As part of planning an integrated risk assessment, risk assessors must define dimensions of the assessment, including the characteristics of the population at risk. These include individuals or sensitive subgroups that may be highly susceptible to risks from stressors or groups of stressors due to their age (e.g., risks to infants and children), gender, disease history, size, or developmental stage. There are other risk issues, dimensions, and concerns that the EPA does not address. This broader set of concerns, recognized as potentially important by many participants in the risk assessment process, relate to social, economic, behavioral, or psychological stressors that contribute to adverse health effects. These stressors may include existing health conditions, anxiety, nutritional status, crime, and congestion.

On the important topic of special subpopulations, the EPA and others are giving more emphasis to the sensitivities of children and to gender-related differences in susceptibility and exposure to environmental stressors. The stated focus of the U.S. Environmental Protection Agency (EPA) is on risk assessments that integrate risks of adverse health and ecological effects from the narrower set of environmental stressors. There is a great deal of controversy about what specifically is an adverse impact. The EPA is engaged in several activities that involve working with stakeholders. However, the agency still resists regularly incorporating cumulative risk concerns in most applied policy areas such as environmental impact statements.

Aggregating Risks

Environmental advocacy groups want to make cumulative effects part of the requirements for an environmental impact assessment. Due to the current state of the practice, strongly vested stakeholder positions, and limited data, the aggregation of risks may often be based on a default assumption of additivity in the United States. This simply adds the risk per chemical for a sum total of risk. It also ignores antagonism, which occurs when chemicals mitigate the risk from one another. In many western European markets, synergized risk and risk to vulnerable populations determine entry into commerce. Some emerging cumulative risk approaches in Canada and western Europe may help set up data development approaches in the United States. However, U.S. approaches to emission control still leave many sources completely unregulated, and those that are regulated emit millions of pounds of chemicals per year. For an accurate cumulative risk assessment, all past and present emissions must be counted.

Beginnings

U.S. lawmakers have been setting environmental policy since 1970, when the EPA was created. Research into the cumulative effects of pollution is emerging slowly, and no one is anxious to hear the news. Cumulative effects often represent the environmental impacts of humans when there were no environmental rules or regulations. They can be significant, and represent large cleanup costs. If cumulative effects are an issue in a typical environmental impact statement, then a finding of significant impact on the environment

CASE STUDY: ENVIRONMENTAL JUSTICE

Flint, Michigan, was the site of an early legal challenge based in part on cumulative impacts of lead primarily found in African American children. The case revolves around an industrial plant built by the Genesee Power Company. It was located in a predominantly African American residential neighborhood in Flint. The lawsuit *(NAACP-Flint Chapter et al. v. Engler et al.,* No. 95–38228CZ [Circuit Court, Genesee County, filed 7/22/95])—filed by two community groups, United for Action and the NAACP-Flint Chapter, and several African American women—challenged the state of Michigan's decision to grant a construction permit to the power company on environmental and environmental justice grounds. The complaint alleged that the granting of this permit would allow that facility to emit more than two tons of lead per year into an African American community that already had very high levels of lead exposure and contamination. The Maurice and Jane Sugar Law Center for Economic and Social Justice, a Detroit-based national civil rights organization, represented the community.

A risk assessment presented as evidence demonstrated that African Americans living in Flint constituted the population that would be most affected by the emissions from this incinerator. Health data included public reports, studies from scientific journals, and privately commissioned studies.

Health information specific to children was also very important in this case. Children under age six are especially vulnerable to lead's negative effects because they absorb more lead in proportion to their weight than do adults. Of children ages six months to five years living in the Flint metropolitan area 49.2 percent already had elevated lead levels in their blood. Lead exposure at an early age has been linked to attention-deficit disorder, problems with anger control and management, and other behavioral changes.

The question for the court was whether this new proposed use, a power plant which is really an incinerator that burns and emits even more lead, is an acceptable cumulative risk for an already lead-poisoned community. The lower state court issued an injunction stopping Michigan from granting any air permits for six months. Appeals ensued. They were granted and allowed the incinerator to go into the African American community in Flint.

is made and a larger-scale environmental impact analysis is required. This too is expensive. Cleanup costs and the cost of environmental impact assessments are usually borne by industry. Industry strongly resists assuming responsibility for what they did not cause, based on a weak model of cumulative effects to date. Many of these cleanup costs could affect the profitability of any single corporation in these industries.

Currently, most corporations listed in the stock exchange place these types of environmental issues in a 10B5 Securities Exchange Commission reporting statement under "contingent liabilities." Nonetheless, communities are very concerned about any emissions, especially as they accumulate among them. Public accessibility has increased knowledge about emissions generally and locally, and they become easier to detect as

they accumulate over time. As some legislation now contains some cumulative effects provisions, some federal agencies are beginning new policies. The first policy experiments are important in terms of lessons learned. Decisions made now about cumulative environmental and human effects in public policy will have a direct bearing on the future health of communities, the future profitability of corporations, and the place in government that resolves the hard parts of implementing this type of policy. Right now, data and information are being developed through pilot programs. Here are some of them:

- Cumulative acute and subchronic health risk to field workers' infants and toddlers in farm communities as a result of organophosphate pesticide exposure (that is, through respiratory, dermal, dietary, and nondietary ingestion) resulting from agricultural and residential uses in light of the nutritional status of field-worker families.
- Cumulative ecological risk to the survival and reproduction of populations of blue crabs or striped bass in the Chesapeake Bay resulting from water and air emissions from both urban and agricultural sources.
- Cumulative risk under the FQPA may be defined using terms such as *aggregate exposure* (that is, the exposure of consumers, manufacturers, applicators, and other workers to pesticide chemical residues with common mechanisms of toxicity through ingestion, skin contact, or inhalation from occupational, dietary, and nonoccupational sources) or cumulative effects (that is, the sum of all effects from pesticide chemical residues with the same mechanism of toxicity).

The EPA is engaged in several cumulative risk activities. The Superfund program has updated its guidelines on risk assessment to include planning and scoping cumulative risk assessment and problem formulation for ecological risk assessments. The plan for the Office of Solid Waste's Surface Impoundment Study includes both a conceptual model and an analytical plan, per the agency guidance on planning and scoping for cumulative risk.

The Office of Water is planning a watershed-scale risk assessment involving multiple ecological stressors. This approach was developed through collaboration with external scientists.

Several regional offices are evaluating cumulative hazards, exposures, and effects of toxic contaminants in urban environments. In Chicago (Region 5), citizens are concerned about the contribution of environmental stressors to ailments including asthma and blood lead levels. In Baltimore, a regional Office of Prevention, Pesticides, and Toxic Substances/community partnership tried to address the long-term environmental and economic concerns in three neighborhoods that are adjacent to industrial facilities and tank farms. Dallas is developing a geographic information system approach for planning for and evaluating cumulative risks.

The FQPA of 1996 requires that the EPA consider the cumulative effects to human health that can result from exposure to pesticides and other substances that have a common mechanism of toxicity. The Office of Pesticide Programs has developed guidelines for conducting cumulative risk assessments for pesticides and has prepared a preliminary cumulative risk assessment for organophosphorus pesticides.

The air toxics program of the Office of Air and Radiation (OAR) has a cumulative risk focus. Under the Integrated Urban Air Toxics Strategy, OAR will be considering cumulative risks presented by exposures to air emissions of hazardous pollutants from sources in the aggregate. Assessments will be performed at both the national scale (a national-scale assessment for base year 1996 was completed in 2002) and at the urban or neighborhood scale. In partnership with the Office of Research and Development (ORD) and the National Exposure Research Laboratory, the Office of Air Quality Planning and Standards is developing the total risk integrated methodology (TRIM), a modular modeling system for use in single- or multimedia, single- or multipathway human health and ecological risk assessments of hazardous and criteria air pollutants at the neighborhood or city scale.

ORD's National Center for Environmental Assessment (NCEA) has completed ecological risk assessment guidelines that support the cumulative risk assessment guidance. Five watershed case studies are being assessed to demonstrate the guidelines approach. Each of these cases deals with cumulative impacts of stressors (chemical, biological, and, in some cases, physical). In addition, federal agencies have prepared a draft reassessment of dioxin and related compounds.

As emissions, impacts, and effects continue to accumulate in the environment, more chemicals will be reevaluated for their contribution to environmental degradation and public health impacts. This is not happening fast enough for many environmentalists and communities.

Global Developments

The ocean and land absorb about 45 percent of carbon emissions, which are the focus of climate change policy talks today. In general, global efforts to reduce the effects of climate change on crop production, human health and the environment are guided by projections about future temperatures. Scientists are trying to find where the global mean temperature associated with stabilizing levels of greenhouse gas concentrations balances. Greenhouse gases, such as carbon dioxide, are associated with global climate change when they are out of equilibrium. When the balance is tipped, potentially dangerous levels of global warming and cooling can occur.

Recent studies show that peak warming caused by a given cumulative carbon dioxide emission is better constrained than the warming response seen in studies concentrating on stabilization. Researchers also are finding that the relationship between cumulative emissions and peak warming is not particularly sensitive to the timing of emissions. As

a result, targets set in new environmental policy that are based on limiting cumulative emissions of carbon dioxide are wrought with scientific uncertainty more than emission-rate or concentration targets.

In today's world of international protocols and accords about how to manage climate change, one pivot point is cumulative emissions. Consideration of what the assessments mean has led to economic environmental policy including the cap-and-trade system and other carbon offset approaches, for example.

Developed nations including the United States are involved in the crucial task of bringing to international climate talks an equal arrangement of emission rights coupled with basic human rights that recognize environmental justice. The United Nations Intergovernmental Panel on Climate Change, the G8, and the Organization of Economic Cooperation and Development organize the talks. This collective currently has assigned developed countries higher emissions quotas than countries that are developing, which remarkably constrains the development interests of poorer countries with, in some cases, less natural resource pollution because of lower industrialization. A global balance is under negotiation, with cumulative emissions at the core.

Conclusion

The public is exposed to multiple contaminants from a variety of sources, and tools are needed to understand the resulting combined risks. The stakes are very high and getting higher every day. The first set of U.S. tools are being tested in the courts. Cumulative effects are receiving much study and are being implemented as policy abroad. With global warming and climate change developing into treaties and U.S. municipal ordinances, these cumulative emissions are increasingly center stage in the United States.

See also **Emissions Trading; Environmental Impact Statements**

Further Reading

Allen, Myles R., et al., "Warming Caused by Cumulative Carbon Emissions Towards the Trillionth Tonne." *Nature* 458 (2009): 1163–1166.

"Assessment of Cumulative Environmental Effects, a Selected Bibliography," November 1995. www.ec.gc.ca/ea-ee/eaprocesses/bibliography_1995_e.asp

Collin, Robert William, *The Environmental Protection Agency: Cleaning Up America's Act.* Westport, CT: Praeger, 2006.

"Considering Cumulative Effects under the National Environmental Policy Act (NEPA)," www.nepa.gov/nepa/ccenepa/ccenepa.htm

"Cumulative Effects Assessment Practitioner's Guide," www.ceaa-acee.gc.ca/ 013/0001/0004/ index_e.htm

Lawrence, David Peter, *Environmental Impact Assessment: Practical Solutions to Recurrent Problems.* Hoboken, NJ: Wiley, 2003.

National Research Council, *Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope.* Washington, DC: National Academies Press, 2003.

Noble, Bram F., *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice,* 2d ed. New York: Oxford University Press, 2010.

Social Learning Group, *Learning to Manage Global Environmental Risks.* Cambridge, MA: MIT Press, 2001.

D

DEEP ECOLOGY AND RADICAL ENVIRONMENTALISM

Stephen Potthoff

Coined by the Norwegian philosopher Arne Naess in 1972, the term *deep ecology* designates both a philosophical and social/political movement intended to address the global environmental crisis. On a philosophical level, heavily influenced by Native American and other aboriginal spiritual traditions, deep ecology maintains the fundamental equality and right to flourish of all elements of the earth and living world. Deep ecology's emphasis on the inherent value of the earth and all living things is grounded in the concept of the fundamental unity of human beings with the whole cosmos to which they belong. Much of the debate and discussion inspired by deep ecology centers around the question of how to balance human need with the necessity to preserve and care for the environment on which human (and all other) life depends.

Deep Ecology's Deep Roots

Deep ecology advocates a move away from an anthropocentric (that is, a *human-centered*) perspective to an ecocentric (that is, a *physical world–centered*) worldview that recognizes as primary the continued flourishing of the entire living and natural world (Sessions 1995a, 156–158; Seed, Macy, Fleming 1988, 35–39). This ecocentric perspective at the core of deep ecology has ancient roots in the cosmological and religious systems of indigenous or primal hunter-gatherer cultures, which regard all aspects of the cosmos as sacred, interrelated, and alive. Given that hunter-gatherer life ways have characterized

cultures spanning most of human history, associated holistic and ecocentric worldviews rank as the most ancient of human religious and philosophical systems (Sessions 1995a, 158). Indigenous holistic and ecocentric worldviews have inspired the writings and work of many deep ecologists, including Pulitzer prize–winning poet Gary Snyder, whose poetry collection *Turtle Island* grew out of his close work with Native Americans, and rainforest activist John Seed, who draws extensively on the wisdom of indigenous peoples in his work to save the rainforest and heal people's relationship to the earth and living world (Snyder 1995, 457–462; Seed, Macy, Fleming 1988, 9–11).

In its contemporary form, however, the deep ecology movement arose in the 1960s alongside the ecological movement, inspired by the publication of Rachel Carson's book *Silent Spring.* Early deep ecologists found inspiration and direction in the nature writings of Henry David Thoreau and John Muir; Aldo Leopold's land ethic, presented in his *Sand County Almanac;* and the Buddhist perspective of Alan Watts. Gary Snyder, in his synthesis of Native American and Zen Buddhist philosophies, has become a prominent international spokesperson for deep ecology. In the academic sphere, Norwegian philosopher Arne Naess began developing some of the principles of deep ecology as early as 1968, building on the philosophical ideas of Spinoza and Gandhi (Sessions 1995b, 157, 232–234).

Particularly significant in helping to crystallize the ecocentric perspective was UCLA historian Lynn White's seminal 1967 article *The Historical Roots of Our Ecologic Crisis.* White argued that Christianity, characterized by a dangerous anthropocentrism, has desacralized the natural world and encouraged its mindless exploitation as nothing more than a resource to be utilized for purely selfish human ends. Instead of science, technology, or Marxism (which he regarded as a Christian heresy), White advocated as a possible solution a return to the nature mysticism of Saint Francis of Assisi (White 1967, x, 158).

The Defining Principles of Deep Ecology

As defined by philosophers Bill Devall and George Sessions, deep ecology is rooted in two fundamental principles. The first is self-realization, which affirms that each individual (human or otherwise) is part of a larger whole, or Self, which encompasses ultimately the planet Earth and the entire cosmos. Expressed in the Native American (Lakota) prayer *Mitakuye Oyasin* ("I am related to all that is"), the concept of self-realization is embraced in some form by diverse religious traditions worldwide (Badiner 1990, xv; Brown 2001, 89). Many indigenous traditions understand human beings' relationship to the living and natural world in kinship or familial terms: animals and trees as well as rocks and rivers are brothers, sisters, and ancestors belonging to one all-encompassing, all-inclusive interdependent family. As a powerful modern expression of the self-realization concept, many deep ecologists have embraced James Lovelock's *Gaia Hypothesis,* which views the entire planet as a living being (Lovelock 1982, 9; Abram 1990, 75).

The second fundamental principle of deep ecology, as outlined by Devall and Sessions, is biocentric equality, which upholds that all elements of the biosphere have an equal right to live and flourish. In maintaining the principle of biocentric equality, deep ecologists do not deny the apparent inequality of the natural world, as evident in the biological realities of predation or natural selection. Yet deep ecology is concerned primarily with challenging the deeply ingrained anthropocentric notion that human beings have an absolute right to reign supreme over the environment and living things without regard for the welfare of the whole. Deep ecology's insistence on biocentric equality derives from the recognition that all entities in the cosmos live interrelated with and interdependent upon one another. The principle of biocentric equality follows logically from that of self-realization insofar as harming one element of the biosphere harms the whole. Ultimately, deep ecology thus embraces a vision of the cosmos where human beings live in harmony and balance with all entities in the interconnected web of life. In practical terms, this means that humans, as an interdependent part of a much greater Self, should live in ways that encourage the survival of all other species (and the environment) upon which they depend.

In addition to articulating basic principles such as self-realization and biocentric equality, deep ecologists have also sought to distinguish deep ecology from what they see as the more shallow ecology characteristic of environmental policies in the industrialized world. In 1973, Arne Naess critiques what he terms a shallow ecological movement that, though attempting to fight pollution and conserve resources, is primarily concerned with maintaining the health and high living standard of developed countries (Naess 1995b, 151). In a 1986 article, he develops the shallow–deep antithesis further, contrasting the approaches of the two different movements to key issues such as pollution and resource depletion. With respect to pollution, the shallow ecological approach entails the creation of laws that, while seeking to limit pollution, often simply relocate it by exporting high-pollution industry to developing countries. In contrast, the deep ecological approach analyzes pollution in terms of its overall systemic impact on the entire biosphere, looking at health effects on all species and seeking economic and political alternatives to the unjust practice of pollution exportation. With respect to resource depletion, deep ecology rejects the shallow ecological treatment of animals, trees, and the earth merely as resources for human use, insisting that the earth and living world are valuable in and of themselves, independent of their utility to human beings (Naess 1995a, 71–72).

Working together with George Sessions, Arne Naess formulated an eight-point deep ecology platform; a foundational statement embodying both the activist and philosophical commitments of the deep ecology movement (Naess 1995a, 68):

1. The well-being and flourishing of human and nonhuman life on Earth have value in themselves (synonyms: intrinsic value, inherent worth). These values are independent of the usefulness of the non-human world for human purposes.

2. Richness and diversity of life forms contribute to the realization of these values and are also values in themselves.
3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
4. The flourishing of human life and cultures is compatible with a substantially smaller human population. The flourishing of nonhuman life *requires* a smaller human population.
5. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
7. The ideological change will be mainly that of appreciating life quality (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between bigness and greatness.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.

Naess notes that points one to five directly challenge dominant models of economic growth and development in industrialized countries. At the same time, he admits that reducing population growth and wealthy countries' "interference with the non-human world" will take hundreds of years (Naess 1995a, 69). As a way of promoting the deep ecology movement in developing countries, Naess recommends direct grassroots action, which can circumvent government interference.

Critiques of Deep Ecology

One of the most widely discussed critiques of deep ecology is that it is misanthropic: critics have argued that in its critique of anthropocentrism and commitment to biocentric equality, deep ecology advocates the survival and flourishing of nonhuman species at the expense of human beings (Sessions 1995, xiii, 267; Fox 1995, 280). For example, in a remark he subsequently retracted, former Vice President Al Gore charged Arne Naess's deep ecology with treating people as "an alien presence on the earth" (Sessions 1995b, xiii). After giving a speech on overfishing in the Barent Sea, in which Naess advocated viewing the sea as a "whole complex ecosystem" where even microscopic flagellates have intrinsic value, a fishing industry representative is said to have quipped: "Naess is of course more concerned about flagellates than about people" (Naess 1995d, 406).

Deep ecologists respond that such critiques arise from a basic misunderstanding or misrepresentation of deep ecological principles. Al Gore's remark was inspired by a statement from Dave Foreman, a leader of the radical Earth First! environmental

group, about "not giving aid to Ethiopians and allowing them to starve"—a remark for which Foreman subsequently apologized (Sessions 1995b, xxvi). Although Earth First! has adopted the deep ecology platform, Sessions points out that such clearly misanthropic statements are fundamentally antithetical to deep ecology's ecocentrism (Sessions 1995b, xiii). Admitting that deep ecology's radical egalitarian stance has often been misunderstood, Naess emphasizes that such egalitarianism does not imply that humans are not extraordinary or that they have no obligations to their own species (Naess 1995a, 76). Deep ecology endeavors to promote "an egalitarian attitude on the part of humans toward all entities in the ecosphere—including *humans*" (Fox 1995, 280).

In developing this point further, Naess explains that deep ecology's ecocentric perspective seeks to promote awareness of human interdependence and interconnectedness within the earth's ecosystem, not to devalue human beings. In response to the charge that he cared more about flagellates than people, Naess explains: "My point was that the present tragic situation for fishermen could have been avoided if policy makers had shown a little more respect for all life, not less respect for people" (Naess 1995d, 406). At the same time, balancing human need with the necessity of preserving the ecosphere is, in practical terms, often very difficult. In addressing such difficult human and environmental issues, some of the most thoughtful challenges to deep ecology have come from scholars and environmentalists in the developing world. Indian environmental scholar Ramachandra Guha, for example, critiques deep ecology on several points, two of which are taken up here.

First, while Guha praises, in a general sense, deep ecology's challenge to human "arrogance and ecological hubris," he rejects the further conclusion "that intervention in nature should be guided primarily by the need to preserve biotic integrity rather than by the needs of humans" (Guha 2003, 555). Encouraging a philosophical shift from an anthropocentric to a biocentric perspective, Guha argues, fails utterly to address the two primary causes of environmental destruction: (1) overconsumption by wealthy nations and Third World elites and (2) militarization, with its threat of nuclear annihilation (Guha 2003, 555). The complex economic, political, and individual lifestyle factors that support militarization and overconsumption cannot be traced back merely to deeply ingrained anthropocentrism (Guha 2003, 556). In essence, then, Guha insists that protecting and preserving the environment necessarily entails addressing the root causes of overconsumption and militarization.

Guha's second critique of deep ecology is that the setting aside of wildlife preserves and wilderness areas, a practice supported by Western deep ecologists, has been thoroughly detrimental in the developing world. As a prominent example, Guha cites Project Tiger in his native India—an effort spearheaded by Indian conservationists in cooperation with international agencies such as the World Wildlife Fund. Project Tiger, by displacing poor rural villagers to preserve endangered tigers, "resulted in a direct transfer of resources from the poor to the rich" (Guha 2003, 556). Guha sees such wilderness

preservation efforts, and associated claims by Western biologists that only they are competent to decide how tropical areas are to be used, as a blatant expression of Western neocolonial imperialism (Guha 2003, 556–557).

Deep ecologists have responded to Guha's and similar critiques, at various levels. First, deep ecologists disagree in some respects with Guha over how human beings ought to relate to and live within the natural world. Whereas deep ecology, drawing from the teachings of indigenous and many Eastern religious traditions, promotes a paradigm of cooperative interrelationship with the natural world, Guha sees Eastern religious traditions supporting a model in which humans throughout history in the East have engaged in a "finely tuned but nonetheless conscious and dynamic manipulation of nature" (Guha 2003, 557). From a deep ecological perspective, however, viewing the natural world as something to be manipulated or controlled constitutes in itself a form of imperialism. In an observation with which Guha might well agree, Thomas Birch condemns America's "incarceration" of natural areas into wilderness reservations as another example of the "white imperium" attempting to subdue and control an "adversarial other." Citing Luther Standing Bear, Birch upholds deep ecology's vision of a human relationship with the earth that is not adversarial "but participatory, cooperative, and complementary" (Birch 1995, 348).

Second, from the ecocentric standpoint of deep ecology, the claim that human needs must take precedence over biodiversity illustrates just how deeply ingrained anthropocentrism is in human thinking about the environment (Sessions 1995b, xvi). Third, deep ecologists have pointed out that addressing the widespread social injustice associated with and perpetuated by such things as overconsumption and militarization does not by itself necessarily result in a harmonious or sustainable relationship with the natural world (Fox 1995, 276). Focusing merely on human problems unacceptably relegates the nonhuman world to its traditional secondary position as the "background against which the significant action—human action—takes place" (Fox 1995, 277). In a detailed response to Guha, Naess defends wilderness preservation efforts, clarifying that such a strategy is not intended for export to colonize the developing world but is one of the essential tools in limiting environmental destruction caused by industrial overconsumption in the *West* (Naess 1995d, 401).

Conclusion

Despite such differences in perspective, deep ecologists appear to stand in essential agreement with Guha's analysis. Naess, speaking for many environmentalists, asserts that human beings must set as a universal goal the avoidance of "all kinds of consumerism" and questions whether wealthy nations, given their own environmental record, "deserve any *credibility* when preaching ecological responsibility to the poor countries" (Naess 1995d, 399, 401). Deep ecologists would have very little argument with Guha's call for overconsuming, expansionist western nations to adopt an "ethic of renunciation

and self-limitation" (Guha 2003, 558). In addition, deep ecologists and environmentalists, in general, are well aware of (and are seeking to address) the ongoing environmental (not to mention human) devastation caused by the military industrial complex (Sessions 1995b, xvi–xvii). Naess, Gary Snyder, and many other deep ecologists work with and support indigenous autonomous efforts worldwide to preserve and find ways to live sustainably in relation to the environment (Naess 1995d, 404–405). In this spirit of cooperation and mutual concern, Naess presents deep ecologists with a question to guide future inquiry and action: "How can the increasing global interest in protecting all Life on Earth be used to further the cause of genuine economic progress and social justice in the Third World?" (Naess 1995d, 406). Returning to the core principles of self-realization and biocentric equality, deep ecology thus upholds a vision in which humans take care of themselves by learning to care for Mother Earth.

See also **Endangered Species; Environmental Justice; Wild Animal Reintroduction; Sustainability (vol. 1)**

Further Reading

Abram, D., "The Perceptual Implications of Gaia." In *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology,* ed. A. H. Badiner, 75–92. Berkeley, CA: Parallax Press, 1990.

Badiner, A. H., ed., *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology.* Berkeley, CA: Parallax Press, 1990.

Birch, T., "The Incarceration of Wildness: Wilderness Areas as Prisons." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions. Boston: Shambhala, 1995.

Bodian, S., "Simple in Means, Rich in Ends: An Interview with Arne Naess." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions, 26–36. Boston: Shambhala, 1995.

Brown, J. E., *Teaching Spirits: Understanding Native American Religious Traditions.* New York: Oxford University Press, 2001.

Clowney, David, and Patricia Mosto, *Earthcare: An Anthology in Environmental Ethics.* Lanham, MD: Rowman & Littlefield, 2009.

Devall, B., and G. Sessions, "Deep Ecology: Living as if Nature Mattered." Excerpted in *Contemporary Moral Problems,* 7th ed., ed. J. E. White, 545–552. Belmont, CA: Wadsworth/Thomson, 2003.

Fox, W., "The Deep Ecology–Ecofeminism Debate and its Parallels." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions, 269–289. Boston: Shambhala, 1995.

Grey, W., "A Critique of Deep Ecology." *Journal of Applied Philosophy* 3, no. 2 (June 2008): 211–216.

Guha, R., "Radical American Environmentalism and Wilderness Preservation: A Third World Critique." In *Contemporary Moral Problems,* 7th ed., ed. J. E. White, 553–559. Belmont, CA: Wadsworth/Thomson, 2003.

Lovelock, J. E., *Gaia: A New Look at Life on Earth.* New York: Oxford University Press, 1982.

Naess, A., "The Deep Ecological Movement: Some Philosophical Aspects." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions, 64–84. Boston: Shambhala, 1995a.

Naess, A., "The Shallow and the Deep, Long-Range Ecology Movements." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions,151–155. Boston: Shambhala, 1995b.

Naess, A., "Self-Realization: An Ecological Approach to Being in the World." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions, 225–239. Boston: Shambhala, 1995c.

Naess, A., "The Third World, Wilderness, and Deep Ecology." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions, 397–407. Boston: Shambhala, 1995d.

Seed, J., J. Macy, P. Fleming, and A. Naess, *Thinking Like a Mountain: Towards a Council of All Beings.* Montpelier, VT: Capital City Press, 1988.

Sessions, G., "Ecocentrism and the Anthropocentric Detour." In *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions. Boston: Shambhala, 1995a.

Sessions, G., ed. *Deep Ecology for the 21st Century: Readings on the Philosophy and Practice of the New Environmentalism.* Boston: Shambhala, 1995b.

Snyder, G. "The Rediscovery of Turtle Island." In *Deep Ecology for The 21st Century: Readings on the Philosophy and Practice of the New Environmentalism,* ed. G. Sessions. Boston: Shambhala, 1995.

White, L., "The Historical Roots of Our Ecologic Crisis." *Science* 155 (1967): 1203–1207.

E

EMISSIONS TRADING

Robert William Collin and Debra Ann Schwartz

Greenhouse gas emissions are a new commodity. The Kyoto Protocol, which the United States did not sign, outlines accepted targets for limiting or reducing emissions that thin or destroy the atmospheric conditions which allow life on Earth as we know it today. The targets are expressed as levels of emissions allowed, or "assigned amounts," per country. They apply to the years 2008–2012. The protocol's jargon divides allowed emissions into "assigned amount units" (AAUs).

The protocol spells out the details in its "Annex B, Parties" and "Article 17" sections. The specifics allow countries with units to spare—that is, that are allotted but not used—to sell their excess capacity to countries that are over their targets or whose industry requires polluting more than is acceptable under the protocol.

As such, the protocol helped to create a new commodity: emission pollution. Mostly, trades are in some form of carbon, such as carbon dioxide, the principal greenhouse gas under discussion. Consequently, carbon now is tracked and traded like any other commodity. This is known as the "carbon market."

The International Emissions Trading Association (IETA) holds regional meetings throughout the world on the matter. In June 2010, the IETA lobbied U.S. senators to pass a bill on climate change after one proposed by Senator Lisa Murkowski (R-AK) failed in the senate.

Definition

Emissions trading is a regulatory environmental policy to reduce the cost of pollution control by providing economic incentives to regulated industries for achieving reductions

in the emissions of pollutants. A central authority, such as an air pollution control district or a government agency, sets limits or caps on each regulated pollutant. Industries that intend to exceed their permitted limits may buy emissions credits from entities that are able to stay below their permitted limits. This transfer is normally referred to as a trade. This is a new policy in the United States. Questions that may become controversies include whether all emissions are measured. Another more basic question is whether society can still allow polluters to buy their way out of responsibility for environmental and community impacts.

Harnessing Market Forces for a Safer Environment?

Market-based environmental policies for reducing pollution include many economic or market-oriented incentives. These include tax credits, emissions fees, or emissions trading. There are many types of emissions trading approaches; the one used by Clean Air Market Programs designed by the Environmental Protection Agency (EPA) is called "allowance trading" or "cap and trade" and has the following key features:

1. An emissions cap: a limit on the total amount of pollution that can be emitted (released) from all regulated sources (e.g., power plants); the cap is set lower than historical emissions to cause reductions in emissions.
2. Allowances: an allowance is an authorization to emit a fixed amount of a pollutant.
3. Measurement: accurate tracking of all emissions.
4. Flexibility: sources can choose how to reduce emissions, including whether to buy additional allowances from other sources that reduce emissions.
5. Allowance trading: sources can buy or sell allowances on the open market.
6. Compliance: at the end of each compliance period, each source must own at least as many allowances as its emissions.

U.S. Environmental Policy

According to the EPA, cap and trade is a policy approach to controlling large amounts of emissions from a group of sources at a cost that is lower than if sources were regulated individually. The approach first sets an overall cap, or maximum amount of emissions per compliance period, that will achieve the desired environmental effects. Permits to emit are then allocated to pollution sources, and the total number of allowances cannot exceed the cap. The main requirement is that pollution sources completely and accurately measure and report all emissions. There is grave concern about this premise. Since not all emissions are counted now, many people are concerned that this lack of specific reporting will only hide pollution.

Successes

Cap and trade was first tried in the United States to control emissions that were causing severe acid rain problems over very large areas of the country.

Legislation was passed in 1990 and the first compliance period was 1995. Sulfur dioxide (SO_2) emissions have fallen significantly, and costs have been even lower than the designers of the program expected. The U.S. Acid Rain Program has achieved greater emissions reductions in such a short time than any other single program to control air pollution. A cap and trade program also is being used to control SO_2 and nitrogen oxides (NO_x) in the Los Angeles area. The Regional Clean Air Incentives Market (RECLAIM) program began in 1994.

The regulating agency (e.g., EPA) must:

- Be able to receive the large amount of emissions and allowance transfer data and assure the quality of those data
- Be able to determine compliance fairly and accurately
- Strongly and consistently enforce the rule

Allowance trading is the centerpiece of EPA's Acid Rain Program, and allowances are the currency with which compliance with the SO_2 emissions requirements is achieved. Through the market-based allowance trading system, utilities regulated under the program, rather than a governing agency, decide the most cost-effective way to use available resources to comply with the acid rain requirements of the Clean Air Act. Utilities can reduce emissions by employing energy conservation measures, increasing reliance on renewable energy, reducing usage, employing pollution-control technologies, switching to lower-sulfur fuel, or developing other alternate strategies. Units that reduce their emissions below the number of allowances they hold may trade allowances with other units in their system, sell them to other utilities on the open market or through EPA auctions, or bank them to cover emissions in future years. Allowance trading provides incentives for energy conservation and technology innovation that can both lower the cost of compliance and yield pollution-prevention benefits, although this is controversial.

The Acid Rain Program established a precedent for solving other environmental problems in a way that minimizes the costs to society and promotes new technologies.

Allowances

An allowance authorizes a unit within a utility or industrial source to emit one ton of SO_2 during a given year or any year thereafter. At the end of each year, the unit must hold an amount of allowances at least equal to its annual emissions, that is, a unit that emits 5,000 tons of SO_2 must hold at least 5,000 allowances that are usable in that year. However, regardless of how many allowances a unit holds, it is never entitled to exceed the limits set under Title I of the act to protect public health. Allowances are fully

marketable commodities. Once allocated, allowances may be bought, sold, traded, or banked for future use. Allowances may not be used for compliance prior to the calendar year for which they are allocated.

Allowances may be bought, sold, and traded by any individual, corporation, or governing body, including brokers, municipalities, environmental groups, and private citizens. The primary participants in allowance trading are officials designated and authorized to represent the owners and operators of electric utility plants that emit SO_2.

Determining Compliance

At the end of the year, units must hold in their compliance subaccounts a quantity of allowances equal to or greater than the amount of SO_2 emitted during that year. To cover their emissions for the previous year, units must finalize allowance transactions and submit them to the EPA by March 1 to be recorded in their unit accounts. If the unit's emissions do not exceed its allowances, the remaining allowances are carried forward, or banked, into the next year's account. If a facility's emissions exceed its allowances, it must pay a penalty and surrender allowances for the following year to the EPA as excess emission offsets.

Emissions trading or marketable rights have been in use in the United States since the mid-1970s. The advocates of free market environmentalism sometimes use emissions trading or marketable rights systems as examples to support the theory that free markets can handle environmental problems.

The idea is that a central authority will grant an allowance to entities based on a measure of their need or their previous pollution history. For example an allowance for greenhouse gas emissions to a country might be based on total population of the country or on existing emissions of the country. An industrial facility might be granted a license for its current actual emissions. If a given country or facility does not need all of its allowance, it may offer it for sale to another organization that has insufficient allowances for its emission production.

Environmentalists point out that this only increases environmental impacts to the carrying capacity, and beyond, of the environment. They observe that industry is supposed to reduce its emissions to the greatest extent possible under current environmental law. Claims that emissions will somehow be reduced now, or at least shifted to where it could saturate another environment, are not viewed as credible. This lays the foundation for controversy. Communities point out that the cumulative impact of already existing industries is a concern and possible public health risk.

Prominent Trading Systems

The most common policy example of an environmental emissions trading system is the sulfur dioxide trading system contained in the Acid Rain Program of the 1990 Clean Air Act. The program mandates reducing sulfur dioxide emissions by 50 percent between1980 and 2010. In 1997, the state of Illinois adopted a trading program for volatile

organic compounds in the Chicago area, called the Emissions Reduction Market System. Beginning in 2000, more than 100 major sources of pollution in eight Illinois counties began trading pollution credits. In 2003, New York State proposed and attained commitments from nine northeastern states to cap and trade carbon dioxide emissions. States and regions of the United States are pursuing more of these policies.

The European Union Greenhouse Gas Emission Trading Scheme is the largest multinational, greenhouse gas emissions trading scheme in the world. It started in January 2005 and all 25 member states of the European Union participate in it.

Conclusion

Emissions trading is an experimental policy coming of age in the United States. However, it exposes major flaws in the country's environmental regulatory regime. Most environmental information about some of the biggest and unknown environmental impacts comes from self-reporting and may not be accurate. Many industries self-report whether they emit enough to even require any type of permit or oversight. Once regulated, emissions are simply permitted, and amounts are self-reported by industry. Emissions trading may be seen as a free market band-aid to a young, weak, and incomplete public policy of environmental protection. It opens up large holes in the current system and may inflame environmentalists and the public depending on how it is implemented. In a society moving toward concepts like sustainability, emissions trading may be challenged in its present form.

See also **Carbon Offsets; Cumulative Emissions; Environmental Audits and Industrial Privilege; Sustainability (vol. 1)**

Further Reading

Environmental Economics, "Problems of Emissions Trading." www.env-econ.net/2006/12/problems_with_e.html

FitzRoy, Felix, and Elissaios Papyrakis, *Introduction to Climate Change Economics and Policy.* London: Earthscan, 2010.

Grubb Michael, and Karsten Neuhoff, *Allocations, Incentives and Industrial Competitiveness under the EU Emissions Trading Scheme.* London: Earthscan, 2006.

Hansjürgens, Bernd, *Emissions Trading for Climate Policy: US and European Perspectives.* Cambridge, UK: Cambridge University Press, 2005.

International Emission Trading Association, http://www.ieta.org/ieta/www/pages/index.php

Jong, Cyriel de, and Kasper Walet, eds., *A Guide to Emissions Trading: Risk Management and Business Implications.* London: Risk Books, 2004.

Schreuder, Yda, *The Corporate Greenhouse: Climate Change Policy in a Globalizing World.* New York: Zed Books, 2009.

United Nations Framework Convention on Climate Change, "Emissions Trading." http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php

ENDANGERED SPECIES

Robert William Collin and Scott M. Fincher

Controversies about endangered species center on the value of species and the cost of protecting and preserving them and their habitats. There are debates about whether a particular species is going extinct and whether a particular policy actually does protect a designated species. Natural resource extraction (logging, mining, grazing), land and road development into wildlife habitats, and increased recreational use are all central issues in this controversy.

Background

Species extinctions have occurred along with evolution. As plant and animal species evolve over time, some adaptations fail. As human population has increased, along with our hunting, farming, and foraging capacities, plant and animal species have begun to disappear faster. Pollution, climate change, and other significant environmental impacts can destroy species in sensitive niches in the food chain. In most cases species are endangered because of human impacts, but each case can present its own issues.

The evidence for human impact on species in the United States is often based on successful eradication programs for problem pests. Knowledge about species extinctions grew as environmentalists, hunters, researchers, and others observed extinctions and near-extinctions of several species, such as the buffalo and pigeon. Endangered species create a great concern for productive bioregions and ecosystem integrity. They can represent a significant part of the food web, and their loss can forever weaken other parts of that food web. Eventually, this great social concern for endangered species found its way into law, now one of the main tools used by advocates on either side of the debate.

Debate over Saving a Species

Debates arise about whether a species is in danger of becoming extinct. When a species is designated endangered, more debate ensues over whether it is worth saving and what governmental polices might help to preserve it. One consideration is the species' habitat. Should activities that might benefit humans—such as mining, logging and grazing—be permitted? Should industrial and residential development continue? Should recreation be limited in wildlife areas?

Species Have Disappeared Naturally

As plant and animal species evolved over hundreds of thousands of years, some became extinct because they failed to adapt appropriately to the natural world. Scientists think that an increasing human population accelerated the process of extinction. Hunting, farming, pollution, climate change, and other human encroachments on species'

environments can destroy species in sensitive niches in the food chain. What to do about these activities and conditions is subject to debate.

The evidence for human impact on species in the United States is often based on successful eradication programs for problem pests. Knowledge about dwindling species has resulted from the observations of hunters, researchers, environmentalists, and others. Examples are the much smaller number of American bison and the extinction of the passenger pigeon, which has not been seen in the wild since the 1920s. Endangered species can be a great concern for bioregions and the ecosystem. They can be an important part of the food chain, and their loss can weaken other parts of that chain. Eventually, the concern for species becoming endangered found its way into laws that have become a subject of debate.

U.S. Laws Stir Controversy

The 1966 federal Endangered Species Act (ESA) sets the policy for species preservation. It is controversial and involves issues such as long-term leases of public lands, private property, and defensible science. Scientific controversies include ecosystem risk assessment, the concept of a species and how it has been interpreted for ESA application, and conflicts between species when individual species are identified for protection and others are not. One such controversy is over the preservation of the habitat for the spotted owl in Oregon, which prevented logging. Approximately 60 logging mills subsequently closed. There are current discussions about whether saving the owl's habitat saved the bird (note: why was saving the bird important?). Endangered species designation can affects natural resource extraction such as logging and mining by prohibiting or limiting it.

Before a plant or animal species can receive protection under the ESA, it must first be placed on the federal list of endangered and threatened wildlife and plants. The listing program follows a strict legal process to determine whether to list a species, depending on the degree of threat it faces. The law has levels of designation: An *endangered* species is one that is in danger of extinction throughout all or a significant portion of its range. A *threatened* species is one that is likely to become endangered in the foreseeable future. The federal government maintains a list of plants and animals native to the United States that have potential to be added to the federal list of endangered species.

Small but Important Step

When the U.S. Congress passed the Endangered Species Preservation Act, the law was deemed a small but important first step toward species preservation. The law allows listing of only native animal species as endangered and provided limited means for the protection of species so listed. The Departments of the Interior, Agriculture, and Defense were to seek to protect listed species and to preserve the habitats of such species. Land

acquisition for protection of endangered species was also authorized by law. In 1969, another law was passed to provide additional protection to species in danger of worldwide extinction. The next law was the Endangered Species Conservation Act. This law bans the importation and sale of such species in the United States.

World Wakes Up to Problem

The 1969 act also called for an international meeting to adopt a convention on the conservation of endangered species, and in 1973 a conference in Washington led to the signing of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). It restricts international commerce in plant and animal species believed to be actually or potentially harmed by trade. After that conference, the U.S. Congress passed the ESA of 1973. This law combined and strengthened the provisions of earlier laws. It also had the effect of intensifying the controversy.

Its principal provisions follow:

- U.S. and foreign species lists were combined, with uniform provisions applied to both categories of endangered and threatened.
- Plants and all classes of invertebrates were eligible for protection, as they are under CITES.
- All federal agencies were required to undertake programs for the conservation of endangered and threatened species and were prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its critical habitat.
- Broad prohibitions were applied to all endangered animal species, which could also apply to threatened animals by special regulation.
- Matching federal funds became available for states with cooperative agreements.
- Authority was provided to acquire land for listed animals and for plants listed under CITES.
- U.S. implementation of CITES was provided.

Although the overall thrust of the 1973 act has remained the same, amendments were enacted in 1978, 1982, and 1988. Principal amendments are as follows:

- Provisions were added to Section 7, allowing federal agencies to undertake an action that would jeopardize listed species if the action were exempted by a cabinet-level committee convened for this purpose.
- Critical habitat was required to be designated concurrently with the listing of a species, when prudent, and economic and other effects of designation were required to be considered in deciding the boundaries.

- The secretaries of the Interior and Agriculture were directed to develop a program for conserving fish, wildlife, and plants, including listed species, and land acquisition authority was extended to such species.
- The definition of *species* with respect to *populations* was restricted to vertebrates; otherwise, any species, subspecies, variety of plant, or species or subspecies of animal remained listable under the act.
- Determinations of the status of species were required to be made solely on the basis of biological and trade information, without any consideration of possible economic or other effects.
- A final ruling on the status of a species was required to follow within one year of its proposal unless withdrawn for cause.
- Provision was made for designation of experimental populations of listed species that could be subject to different treatment under Section 4, for critical habitat, and Section 7.
- A prohibition was inserted against removing listed plants from land under federal jurisdiction and reducing them to possession.
- Monitoring of candidate and recovered species was required, with adoption of emergency listing when there is evidence of significant risk.
- A new section requires a report of all reasonably identifiable expenditures on a species-by-species basis that were made to assist the recovery of endangered or threatened species by the states and the federal government.
- Protection for endangered plants was extended to include destruction on federal land and other taking when it violates state law.

Several amendments dealt with recovery matters:

- Recovery plans are required to undergo public notice and review, and affected federal agencies must give consideration to those comments
- Five years of monitoring of species that have recovered are required.
- Biennial reports are required on the development and implementation of recovery plans and on the status of all species with plans.

Roll Call of the Imperiled

As of June 2010, a total of 1,220 species of animals and 798 species of plants in the United States were listed as threatened and endangered or proposed for listing as threatened or endangered. Forty-nine bird and animal species are currently proposed for listing, with 252 species in the United States designated as candidates for endangered status

Over the years, 557 habitat conservation plans (HCPs) have been approved. According to law, a HCP outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species. It usually includes measures to minimize adverse

affects and may include provisions for permanently protecting land, restoring habitat, and relocating plants or animals to another area.

As of 2010, administrators approved 1,043 species for recovery plans. A recovery plan is a document drafted by a knowledgeable individual or group that serves as a guide for activities to be undertaken by federal, state, or private entities in helping to recover and conserve endangered or threatened species. Recovery priority is also determined in these plans. There can be differences of opinion as to how high a priority certain species should have in a recovery plan. A rank ranges from a high of 1 to a low of 18, and these set the priorities assigned to listed species and recovery tasks. The assignment of rank is based on degree of threat, recovery potential, taxonomic distinctiveness, and presence of an actual or imminent conflict between the species and development activities.

The regulations for protection of endangered species generally require protection of species habitat. As our population grows and development expands into natural areas, the protection of wildlife habitat becomes more important and more difficult. Preservation of riparian (water) migratory pathways, private conservation efforts, and applied scientific research all hold promise for species preservation. However, the need for wildlife habitat preservation will still impair the ability of some property owners use their land as they wish. The controversies around species preservation are likely to be around for a long time.

Conclusion

As human habitation extends into more wild areas, more species are likely to become extinct. Coral reefs are rapidly dying in many parts of the world and with them, many of the species that thrive there. There are strong world conservation efforts for species protection but also strong political conflict when it comes to that kind of preservation. As more information on human environmental impacts on marine environments develops, so too will lists of endangered species.

See also **Deep Ecology and Radical Environmentalism; Federal Environmental Land Use; Logging; Mining of Natural Resources; Wild Animal Reintroduction**

Further Reading

Barrow, Mark V. Jr., *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology.* Chicago: University of Chicago Press, 2009.

"Endangered and Extinct Species Lists," eelink.net/EndSpp.old.bak/ES.lists.html

Goble, Dale D., J. Michael Scott, and Frank W. Davis, eds., *The Endangered Species Act at Thirty.* Washington, DC: Island Press, 2006.

Office of Protected Resources, "Species under the Endangered Species Act (ESA)." www.nmfs.noaa.gov/pr/species/esa

Shogren, Jason F., and John Tschirhart, eds., *Protecting Endangered Species in the United States: Biological Needs, Political Realities, Economic Choices.* New York: Cambridge University Press, 2008.

U.S. Fish & Wildlife Service, "Endangered Species Program." June 2010. http://www.fws.gov/endangered/wildlife.html#Species

U.S. Fish & Wildlife Service, "TESS Database Species Report." June 2010. http://www.fws.gov/ecos/ajax/tess_public

Westley, Frances R., and Philip S. Miller, *Experiments in Consilience: Integrating Social and Scientific Responses to Save Endangered Species.* Washington, DC: Island Press, 2003.

ENVIRONMENTAL AUDITS AND INDUSTRIAL PRIVILEGE

Robert William Collin

Industries that perform environmental audits do so for a variety of reasons: by law, voluntarily, and as part of other audits. These audits can disclose whether a particular plant is in compliance with environmental laws, areas of cost savings in environmental compliance, and multifacility environmental compliance measures. Industries want audits kept secret, or privileged. Small and medium-sized businesses especially want this legislation because they want to level the playing field with large industry, which can use its own lawyers and hide information within attorney–client privilege. This secrecy prevents communities, environmentalists, and others from knowing about the environmental audit and any information that would relate to local environmental impacts or risks. Industry is concerned about environmental lawsuits and, if not protected by some legal privilege, would not perform any type of environmental audit. Since most U.S. environmental information about industry is self-reported, an independent audit carries much more credibility than the usual industry and government reports. Access to accurate environmental information is the crux of this controversy.

More than 20 states have enacted environmental audit privilege legislation. It takes different forms and is usually controversial. Regular audits should become a normal business management tool that assists compliance with complex environmental regulations and avoids unnecessary waste. Such audits provide valuable information about potential environmental noncompliance, suggest methods for reducing or eliminating waste streams, inform shareholders and customer queries regarding off-site liability, and can be used to create a green corporate image.

Self-auditing programs generate evidence that could be used against a company in an enforcement action. Any noncompliance reported in such a document may create a paper trail available to both enforcement agencies and private plaintiffs. Consequently, although numerous businesses undertake self-audits, many do not want information suggesting environmental noncompliance to be circulated or written down. The fear that this information will be discovered by a private party or a governmental agency discourages self-auditing programs at various companies. To environmental policy makers, this

fear is problematic because it distorts environmental information. Many communities distrust this secret audit process, preferring clear and transparent transactions.

Large industry has always relied on the common-law attorney–client privilege, the work-product doctrine, and, more recently, common-law self-evaluation to argue that audit documentation is privileged. These legal arguments give privileged protection to large companies with environmental self-audit programs. The claim of attorney-client privilege will start a discovery dispute that results in an in-camera review by a judge, who will determine whether to allow the government to use the audit document against the regulated business. In contrast, a small business does not have the financial and strategic capacity to engage a lawyer for an expensive judicial fight for secrecy. The primary controversy between large and small industries here is who gets to privilege environmental information. This is not a controversy shared with communities or environmentalists.

New State Laws on Environmental Privilege

More than 30 states have considered legislation involving environmental audit privilege, and 20 have enacted such laws, including Arkansas, Colorado, Idaho, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, Mississippi, New Hampshire, Ohio, Oregon, South Carolina, South Dakota, Texas, Utah, Virginia, and Wyoming. These state laws essentially codify discovery-dispute procedures that large businesses have always enjoyed. By eliminating the requirement of hiring an attorney, small companies can afford to engage in the same type of self-audit process that most large companies currently take for granted when this legislation is enacted.

The environmental privilege is limited by law and not universally applied or available. A common legislative intent is to encourage owners and operators to conduct voluntary environmental audits of their facilities by offering a limited privilege to audited information. Proponents point out that it is infeasible and unnecessary for state and federal regulators to police each and every business in the state, and therefore self-auditing should be encouraged. Generally, a number of conditions must be met. Some of the conditions that are necessary for the state law on environmental audit privilege to apply are as follows:

1. All noncompliance identified during the audit is corrected in a reasonable manner.
2. The privilege is not asserted for fraudulent purposes.
3. Information in the audit is not otherwise required to be reported.

Some legislation also provides that a person or entity making a voluntary disclosure of an environmental violation is immune from any administrative, civil, and criminal penalties associated with that disclosure. As discussed further on, the compliance focus of environmental law allows for rapid reduction of penalties in return for quick compliance and disclosed and remedied harms.

How Broad Is the Industrial Privilege?

Proponents of audit privilege legislation state that it does not compel secrecy, because no privilege exists unless there is prompt disclosure and correction of the violation. Furthermore, unless the information falls within the very narrow scope of privileged information, it is decidedly vulnerable.

Conclusion

Many states that favor privileging environmental information argue that environmental protection efforts require that businesses, municipalities, and public agencies take self-initiated actions to assess or audit their compliance with environmental laws and correct any violations found. By getting to know all the industries affecting the environment and protecting their information better, compliance with the intent of environmental laws results.

STATE LAWS

Laws can vary from state to state. Some conditions and exceptions of state privilege and immunity laws include:

The audit must be scheduled for a specific time and announced prior to being conducted along with the scope of the audit. (AK)

The company makes available annual evaluations of their environmental performance. (AZ)

In exchange for a reduction in civil and/or administrative penalties a company implements a pollution-prevention or environmental management system. (AZ).

Privilege is not applicable to data, reports, or other information that must be collected, developed, maintained, or reported under federal or state law. (AR)

Audit report is privileged (secret) unless a judge determines that information contained in the report represent a clear, present, and impending danger to public health or the environment in areas outside the facility property. (CO)

An environmental audit report is privileged (secret) and is not admissible as evidence in any civil or administrative proceeding with certain exceptions, if the material shows evidence of noncompliance with applicable environmental laws and efforts to achieve compliance were not pursued by the facility as promptly as circumstances permit. (WY)

The Colorado Environmental Audit Privilege and Immunity Law does not affect public access to any information currently available under the Colorado Open Records Act. This information would include but is not limited to permits, permit applications, monitoring data, and other compliance/inspection data maintained by the Colorado Department of Public Health and Environment.

Additionally, the audit privilege does not affect the Colorado Department of Public Health and Environment's authority to enter any site, copy records, inspect, monitor, or otherwise investigate compliance or citizen complaints.

Community interest in this issue is high, and environmental organizations advocate against these laws. It is likely that state laws on this controversy will change rapidly.

Communities and environmentalists respond that most if not all industrial emissions are self-reported in a context of very weak enforcement. They argue that environmental information is a common good to be shared. Keeping it secret promotes a high degree of distrust and breeds controversy.

Advocates of sustainability and environmentalists want full and complete disclosure of all environmental impacts. The controversy continues to unfold in state and local legislatures and in federal environmental agencies like the EPA. The relationship between states and the EPA on this issue is a developing and somewhat contentious one.

See also **Environmental Impact Statements**

Further Reading

Dietz, Thomas, and Paul C. Stern, eds., *New Tools for Environmental Protection: Education, Information, and Voluntary Measures.* Washington, DC: National Academies Press, 2002.

Martin, Channing J., *Voluntary Disclosure of Environmental Violations: Is Mea Culpa a Good Idea or a Bad Move?* Washington, DC: Environmental Law Institute, 2002.

ENVIRONMENTAL IMPACT STATEMENTS

Robert William Collin

Environmental impact statements (EISs) are powerful regulatory tools that force proponents of projects that have significant impacts on the environment to assess those impacts. Although advisory only, they are used in many environmental controversies.

As knowledge about the environment has grown, so too has concern for the impacts of major projects and processes. Technology and project scale can greatly increase the impact of large-scale development on the environment. Environmental impact statements are advisory in practice but nonetheless required. It is a process fraught with controversies at most of the major stages. The environmental impact process under the National Environmental Policy Act (NEPA) is one that every major project or process with a significant impact on the environment must undergo. Generally, anyone contesting the process must go through the internal agency process first. Some states and tribes have their own environmental impact statement rules and laws.

Flash points for controversies under the EIS requirements are lack of notice, lack of inclusion, and inadequate stakeholder representation. The actual area of impact, called the study area, can shift during the process. Many of the processes of the EIS are time driven, and there is often inadequate time to assess ecosystem or cumulative impacts. The underlying environmental decision, as in the spotted owl controversy, can lend fuel to the EIS process. In the case of the spotted owl, the fact that logging the habitat of this endangered species was a significant environmental impact triggered the requirement for a full EIS. Environmental impact assessment also brings in controversies of

risk assessment generally. However, an increase in environmental impact assessment at all levels is inevitable. Assessment is necessary to measure impacts of new projects and to establish baselines with which to measure changes in the environment. Citizen monitoring is also prodding more environmental assessment. Another common frustration with the federal EIS process is that it is advisory only. The decision maker is free to choose more environmentally harmful alternatives. All these controversies are likely to continue as the range of environmental assessments continue to expand into ecosystem and cumulative approaches.

NEPA was signed into law on January 1, 1970. The act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment, and it provides a process for implementing these goals within the federal agencies. The act also establishes the Council on Environmental Quality (CEQ). This act is a foundational environmental law. The complete text of the law is available for review at NEPAnet.

NEPA Requirements

Title I of NEPA contains a Declaration of National Environmental Policy that requires the federal government to use all practicable means to create and maintain conditions under which humans and nature can exist in productive harmony. Section 102 requires federal agencies to incorporate environmental considerations in their planning and decision making through a systematic interdisciplinary approach. Specifically, all federal agencies are to prepare detailed statements assessing the environmental impact of and alternatives to major federal actions significantly affecting the environment. These statements are commonly referred to as environmental impact statements (EISs). Section 102 also requires federal agencies to lend appropriate support to initiatives and programs designed to anticipate and prevent a decline in the quality of humans' world environment. In 1978, the CEQ promulgated regulations under NEPA that are binding on all federal agencies. The regulations address the procedural provisions of NEPA and the administration of the NEPA processes, including preparation of EISs.

The NEPA process is an evaluation of the environmental effects of a federal undertaking including its alternatives. Any type of federal involvement, such as funding or permitting, can trigger NEPA regulations. There are three levels of analysis depending on whether or not an undertaking could significantly affect the environment. These three levels include categorical exclusion determination; preparation of an environmental assessment/finding of no significant impact (EA/FONSI); and preparation of an EIS.

At the first level, an undertaking may be categorically excluded from a detailed environmental analysis if it meets certain criteria that a federal agency has previously determined as indicating no significant environmental impact. A number of agencies have developed lists of actions that are normally categorically excluded from environmental evaluation under their NEPA regulations. The U.S. Army Corp of Engineers, the U.S.

Environmental Protection Agency, and the Department of the Interior have lists of categorical exclusions. This is an area of policy controversy. One aspect of these lists is that the cumulative effects of their exclusion are not considered. Another is that some of the categories that were once thought to be insignificant may not be now. Projects having insignificant environmental impacts are not required to perform an EIS.

At the second level of analysis, a federal agency prepares a written environmental assessment (EA) to determine whether or not a federal undertaking would significantly affect the environment. Generally, an EA includes brief discussions of the following: the need for the proposal; alternatives (when there is an unresolved conflict concerning alternative uses of available resources); the environmental impacts of the proposed action and alternatives; and a listing of agencies and persons consulted. It may or may not describe the actual study area. There is no actual requirement for notice to the community. Some communities are environmentally assessed without their knowledge. If the agency finds no significant impact on the environment, then it issues a finding of no significant impact (FONSI). The FONSI may address measures that an agency will take to reduce (mitigate) potentially significant impacts. This is the first notice many communities receive about any evaluation of the impacts. Many communities feel that there are significant environmental issues and, had they known about the EA process, could have directed the agency to them.

If the EA determines that the environmental consequences of a proposed federal undertaking may be significant, an EIS is prepared. Significant environmental impacts can be threats to an endangered species, historic sites, or culturally significant areas. An EIS is a more detailed evaluation of the proposed action and alternatives. The public, other federal agencies, and outside parties may provide input into the preparation of an EIS and then comment on the draft EIS when it is completed.

Interested parties are allowed to submit draft alternatives. The agency calls this scoping. Scoping is when the agency selects the interested parties who can submit an alternative proposal. This is a controversial stage of the process. There may be groups who wanted to participate but were not selected. Often there are communities who did not know about the internal agency scoping decisions. Once interested parties are selected, the alternative selection begins. A controversy can occur about which alternatives are examined. One alternative that is always examined is the no action alternative. The alternatives are compared and contrasted. There may be public hearings and some scientific studies. The agency then produces a draft EIS. This document can be a trove of information because it includes all the alternatives considered. The agency administrator then selects one alternative, and it is published in the final environmental impact statement of the EIS, along with its justification. The final EIS can only be 150 pages in length. The decision maker does not have to prioritize environmental protection over economic considerations. The EIS process seldom stops the decision or project, but it can slow it down and focus the public's attention on the environmental controversy.

If a federal agency anticipates that an undertaking may significantly impact the environment or if a project is environmentally controversial, a federal agency may choose to prepare an EIS without having to first prepare an EA. After a final EIS is prepared and at the time of its decision, a federal agency will prepare a public record of its decision addressing how the findings of the EIS, including consideration of alternatives, were incorporated into the agency's decision-making process. An EIS should include discussions of the purpose of and need for the action; alternatives; the affected environment; the environmental consequences of the proposed action; lists of preparers, agencies, organizations, and persons to whom the statement is sent; an index; and an appendix (if any).

Federal Agency Roles

The role of a federal agency in the NEPA process depends on the agency's expertise and relationship to the proposed undertaking. The agency carrying out the federal action is responsible for complying with the requirements of NEPA. In some cases, more than one federal agency may be involved in an undertaking. In this situation, a lead agency is designated to supervise preparation of the environmental analysis. Federal agencies, together with state, tribal, or local agencies, may act as joint lead agencies. A federal, state, tribal, or local agency having special expertise with respect to an environmental issue or jurisdiction by law may be a cooperating agency in the NEPA process. A cooperating agency has the responsibility to assist the lead agency by participating in the NEPA process at the earliest possible time; by participating in the scoping process; in developing information and preparing environmental analyses including portions of the EIS concerning which the cooperating agency has special expertise; and in making available staff support at the lead agency's request to enhance the lead agency's interdisciplinary capabilities. While there are cooperating federal agencies, there is some controversy about intergovernmental relationships with states and municipalities. Where there is a large federal government land presence, as in the western United States, some communities are excluded from important EIS processes.

EPA's Role

The Environmental Protection Agency, like other federal agencies, prepares and reviews NEPA documents. However, the EPA has a unique responsibility in the NEPA review process. Under section 309 of the Clean Air Act, EPA is required to review and publicly comment on the environmental impacts of major federal actions including actions that are the subject of EISs. If the EPA determines that the action is environmentally unsatisfactory, it is required by section 309 to refer the matter to the CEQ. Also the EPA carries out the operational duties associated with the administrative aspects of the EIS filing process. The Office of Federal Activities in the EPA has been designated the official recipient of all EISs prepared by federal agencies.

The Public's Role

The public has an important role in the NEPA process, particularly during scoping, in providing input on what issues should be addressed in an EIS and in commenting on the findings in an agency's NEPA documents. The public can participate in the NEPA process by attending NEPA-related hearings or public meetings and by submitting comments directly to the lead agency. The lead agency must take into consideration all comments received from the public and other parties on NEPA documents during the comment period.

Public participation can be time-consuming and costly for many stakeholders but especially community members. Receiving actual notice of when they can get involved in a particular EIS is generally a point of contention. Some communities consider the EIS decision already made and their participation a formality. Some EISs use complicated scientific analyses to measure different impacts, and these can be difficult to explain to some citizens. If a particular project is controversial, the agency can find that a significant impact itself, thus triggering the EIS requirement. Demand for community involvement can be part of a particular controversy. There is no public participation in the list of actions categorically excluded from the EIS requirements.

Conclusion

Environmental impact assessment is now an integral part of many environmental decisions. The process forces an assessment and includes the public and interested parties. It can also include human health risk assessments and ecological risk assessments, which can create controversies of their own.

EIS processes are necessary for the development and refinement of environmental policy at all levels. For sustainability purposes these assessments allow us to understand the environment around us. More communities and environmentalists demand them with the expectation of involvement and the hope that they are environmentally meaningful. To the extent these groups become more dissatisfied with both process and product, more controversy will develop.

See also **Cumulative Emissions; Environmental Audits and Industrial Privileges**

Further Reading

Dietz, Thomas, and Paul C. Stern, eds., *Public Participation in Environmental Assessment and Decision Making.* Washington, DC: National Academies Press, 2008.

Glasson, John, et al., *Introduction to Environmental Impact Assessment,* 3rd ed. New York: Routledge, 2005.

Hanna, Kevin, *Environmental Impact Assessment: Practice and Participation,* 2d ed. New York: Oxford University Press, 2009.

ENVIRONMENTAL JUSTICE

Robert William Collin

The term *environmental justice* refers to the distribution of environmental benefits and burdens. It includes fair and equal access to all decision-making functions and activities. Race and income shape the historic and present distribution of many environmental benefits and burdens.

Proximity of Communities of Color to Pollution

African Americans are almost four-fifths more likely than whites to live in neighborhoods where industrial pollution is suspected of posing the greatest health danger. In 19 states, African Americans are more than twice as likely as whites to live in neighborhoods with air pollution. Controversies about racism between whites and African Americans, between other nonwhite groups and African Americans, and within environmental organizations and the government are inflamed by the proximity of African American communities to dangerous industrial pollution.

The Associated Press (AP) analyzed the health risk posed by industrial air pollution using toxic chemical air releases reported by factories to calculate a health risk score for all communities in the United States. The scores are used to compare risks from long-term exposure to industrial air, water, and land pollution from one area to another. The scores are based on the amount of toxic pollution released by each factory, the path the pollution takes as it spreads through the air, the level of danger to humans posed by each different chemical released, and the number of males and females of different ages who live in the exposure paths. The AP study results confirm a long string of reports that show that race maps closely with the geography of pollution and unequal protection. These data do not include many other sources of pollution known to affect all urban residents. They also do not consider possible synergistic and cumulative effects.

Background

Historically, African American and other people-of-color communities have borne a disproportionate burden of pollution from incinerators, smelters, sewage treatment plants, chemical industries, and a host of other polluting facilities. Environmental racism has rendered millions of blacks invisible to government regulations and enforcement.

The risk scores also do not include emissions and risks from other types of air pollution, like trucks and cars. The AP research indicates residents in neighborhoods with the highest pollution scores also tend to be poorer, less educated, and more often unemployed. However, numerous other studies show blacks and other people of color concentrated in nonattainment areas that failed to meet EPA ground-level ozone standards.

This is pollution mainly from cars, trucks, and buses. It is substantial and affects African Americans and Hispanics more than others.

In 1992, 57 percent of whites, 65 percent of African Americans, and 80 percent of Latinos lived in one of the 437 counties that failed to meet at least one of the EPA ambient air quality standards. A 2000 study by the American Lung Association found children of color to be disproportionately represented in areas with high ozone levels.

Hispanics and Asians

According to the AP report, in 12 states Hispanics are more than twice as likely as non-Hispanics to live in the neighborhoods with the highest risk scores. There are seven states where Asians are more than twice as likely as whites to live in the most polluted areas. In terms of air quality, other studies have shown that Hispanic neighborhoods are disproportionately affected by air pollution, particularly in the southwestern United States.

Income

Many hold that environmental proximity is a function of income. This assumes a free and flowing housing market without institutional barriers like racism. Higher-income neighborhoods have more political, legal, and economic power to resist industrial sites. The average income in the highest-risk neighborhoods was $18,806 when the census last measured it (2000), more than $3,000 less than the nationwide average. One of every six people in the high-risk areas lived in poverty, compared with one of eight in lower-risk areas. Unemployment was almost 20 percent higher than the national average in the neighborhoods with the highest risk scores.

Proximity to Pollution Increases Long-Term Exposure to Risk

Short-term exposure to common air pollution worsens existing lung and heart disease and is linked to diseases like asthma, bronchitis, and cancer. Long-term exposure increases these risks. Many potentially synergistic chemical reactions in waste in cities are unknown, and so are their potential or actual bioaccumulative risks to humans. The question is who bears the risk of risks not regulated by the government? Until recently, the costs of public health have been separate from the costs of production for industrial capitalism. As health costs mount, the stakeholders who pay for them are protesting.

Current EPA Response

More than 80 research studies during the 1980s and 1990s found that African Americans and poor people were far more likely than whites to live near hazardous waste disposal sites, polluting power plants, or industrial parks. Other studies of the distribution of the benefits and burdens of EPA environmental decisions also found a clear demarcation

along race lines. The disparities were blamed on many factors, including racism in housing and land markets, and a lack of economic and political power to influence land-use decisions in neighborhoods. The studies brought charges of racism. Legally, one must prove the intent to be racist, not just the fact that a given situation is racist. It is very difficult to prove the intent of a city or town when they pass a racially or economically exclusionary zoning ordinance. They are very difficult legal issues to litigate, but litigation still happens. President Clinton responded in 1993 by issuing an environmental justice executive order (EO 12898) requiring federal agencies to ensure that people of color and low-income people are not disproportionately exposed to more pollution. Recent reports suggest little has changed.

The EPA does not intervene in local land-use decisions. The federal government has preemptive power over state and local government to take property it needs. The state governments tend to know about local land-use decisions in relation to environmental agencies. The weak intergovernmental relations between these branches of government allow this controversy to continue to simmer. There are often battles between state environmental agencies and the EPA over the requirements of EO 12898. State environmental agencies are resistant to incorporating environmental justice issues but accommodate regulated industries with one-on-one consultation and permit facilitation.

Racial Disparities

The ways to measure race are themselves very controversial. The U.S. census undercounts urban residents of color frequently, and mayors file lawsuits every 10 years. Significant disparities in health and the actual quality of aspects of the urban environment exist at every level, an indicator of institutionalized racism.

- African Americans represent 12.7 percent of the U.S. population; they account for 26 percent of all asthma deaths.
- African Americans were hospitalized for asthma at more than three times the rate of whites (32.9 per 10,000 versus 10.3 per 10,000) in 2001.
- The asthma prevalence rate in African Americans was almost 38 percent higher than that in whites in 2002.
- African American females have the highest prevalence rates (105 per 1,000) of any group.
- African Americans are more likely to develop and die of cancer than persons of any other racial and ethnic group. During 1992–1999, the average annual incidence rate per 100,000 for all cancer sites was 526.6 for African Americans, 480.4 for whites, 348.6 for Asian/Pacific Islanders, 329.6 in Hispanics, and 244.6 in American Indians/Alaska Natives.
- African Americans are more likely to die of cancer than any other racial or ethnic group in the United States. The average annual death rate from 1997 to

2001 for all cancers combined was 253 per 100,000 for blacks, 200 for whites, 137 for Hispanic Americans, 135 for American Indians/Alaska Natives, and 122 for Asians/Pacific Islanders.

- Cancer kills more African American children than white children. Cancer is surpassed only by accidents and homicides as the number-one killer of African American children.
- Although cancer mortality rates for all races combined declined 2.4 percent each year between 1990 and 1995, the decline for African American children (0.5 percent) was significantly less than that for white children (3 percent).
- African American men have the highest rates of prostate, lung, colon, oral cavity, and stomach cancer.
- African American men are more than 140 percent more likely to die from cancer than white men.
- More white women are stricken with breast cancer than black women, yet black women are 28 percent more likely to die from the disease than white women.
- The overall cancer cure rate, as measured by survival for over five years following the diagnosis, is currently 50 percent for whites but only 35 percent for blacks.
- Cancers among African Americans are more frequently diagnosed after the cancer has metastasized and spread to regional or distant sites.
- Minorities with cancer often suffer more pain owing to undermedication. Nearly 62 percent of patients at institutions serving predominantly African American patients were not prescribed adequate analgesics.
- Many low-income, minority communities are located in close proximity to chemical and industrial settings where toxic waste is generated. These include chemical waste disposal sites, fossil-fuel power plants, municipal incinerators, and solid waste landfills.
- African Americans and other socioeconomically disadvantaged populations are more likely to live in the most hazardous environments and to work in the most hazardous occupations.
- Inner-city black neighborhoods are overburdened with pollution from diesel buses. In a 2002 EPA report, researchers concluded that long-term (i.e., chronic) inhalation exposure to diesel engine exhaust (DE) is likely to pose a lung cancer hazard to humans, as well as damage the lung in other ways, depending on exposure.
- There is a strong relationship between environmental exposure and lung cancer among African Americans, which accounts for the largest number of cancer deaths among both men (30 percent) and women (21 percent).
- People living in the most polluted metropolitan areas have a 12 percent increased risk of dying from lung cancer compared to people living in the least polluted areas.

- Smoking does not explain why lung cancer is responsible for the most cancer deaths among African Americans. Although many black men identify themselves as current smokers, they typically have smoked less and started smoking later in life than white men.
- Rates are higher in urban areas because of increased air pollution and increased particulate matter in the air.
- Minority workers are at a higher health risk from occupational exposure to environmental contaminants.
- African American men are twice as likely to have increased cancer incidence from occupational exposure as white men.

Many feel that belated government efforts to control polluting industries have generally been neutralized by well-organized and well-financed opposition. Industry is challenged in lengthy court battles, during which time industry still has the right to maintain production and exposure of people to suspect materials. Since the environmental regulations themselves and laws apply on a per industrial plant basis, and it is hard to prove any one plant at any one time did directly cause the harm alleged, the process and controversy continue. Communities have also become organized around this issue and have been developing environmental information and data.

PROXIMITY OF COMMUNITIES OF COLOR TO POLLUTION

Environmental Justice Locator

Scorecard.org provides maps at the national, state, county, and census-tract levels that illustrate estimated cancer risks from outdoor hazardous air pollution and the location of three types of pollution-generating facilities: manufacturing firms reporting to the Toxics Release Inventory, facilities emitting criteria air pollutants, and Superfund sites. You can see whether your home, workplace, or school is located in an area where estimated cancer risks are higher, comparable to, or lower than in other communities. You can also see how many polluting facilities are located in your area of interest. Charts associated with the maps provide demographic information about an area, including the percentage of people of color, percentage of families living in poverty, and percentage of homeownership. You can also use Scorecard's mapper to access environmental data at the most local level (i.e., for each individual census tract in the United States).

Distribution of Environmental Burdens

Scorecard uses easy-to-understand bar charts to illustrate which demographic group bears the burden of different pollution problems. Four problems are evaluated: releases of toxic chemicals, cancer risks from hazardous air pollutants, Superfund sites, and facilities emitting criteria air pollutants. Scorecard analyzes the distribution of these problems using seven demographic categories: race/ethnicity, income, poverty, childhood

(*continued*)

(*continued*)

poverty, education, Homeownership, and job classification. For example, Scorecard calculates whether whites or people of color live in areas with greater toxic chemical releases, and then graphically portrays the extent of the disparity, indicating which group is worse off. Further information about any environmental problems in an area can be found in Scorecard reports listed in the links section.

Locator for Unequal Impacts

For any burden or combination of burdens that you select, or any group you select, this locator will show you every county where that group of people experiences a higher impact than the rest of the population in the same county.

Distribution of Risks by Race, Ethnicity, and Income

Is race or income the driving factor accounting for disparate environmental burdens in your state? Scorecard examines the distribution of estimated cancer risks associated with outdoor hazardous air pollution to illustrate patterns of inequity by race/ethnicity and income. Scorecard calculates a population-weighted estimate of the average lifetime cancer risks imposed on each racial/income group by hazardous air pollutants. The Y-axis shows the estimated cancer risk per million persons, and the X-axis displays nine annual household income categories ranging from less than $5,000 to more than $100,000. Each line in the graph represents one of five racial/ethnic groups: whites, African Americans, Native Americans, Asian/Pacific Islanders, and Latinos. Gaps between the lines indicate potential racial/ethnic disparities in cancer risk burdens. Slopes in the lines indicate potential differences in cancer risk across income categories.

Environmental Hazards

Scorecard provides several measures of environmental hazards that can be used to compare states or counties within a state, including average cancer risks from hazardous air pollutants, the number of facilities per square mile that emit criteria air pollutants, the number of Superfund sites per square mile, and the number of Toxic Release Inventory facilities per square mile. Environmental hazard indicators for counties and states can be compared to demographic profiles in order to assess which communities bear the largest burden from pollution sources.

Conclusion

Racism in U.S. society is not news but remains a fact. Slavery is racist and the United States had African slaves that built the foundations of the country. These facts reach far into many present-day environmental dynamics that are as repulsive as slavery and racism seem to present-day populations. And in the environmental area, just like history, the most pernicious racism is reserved for African Americans. After the Civil War, three waves of African American people migrated north to the cities, seeking freedom and economic opportunity, just as all other immigrants and migrants have done before

and since. When urban industrialization expanded, it polluted the city. Many other people of color and migrants were able to melt into U.S. society. In the areas of housing, employment, health, education, and transportation, this has not been the case with African Americans. Instead of moving out of the city, many African Americans stayed because of foreclosed opportunities. Industry has also stayed in these neighborhoods. This controversy is the broken lock to a Pandora's box of unavoidable and necessary controversy. All discussions of cumulative effects, sustainability, and U.S. urban environmentalism must consider the true environmental past of every place. There are many reasons for this, the least of which is to know where to clean up first. The next set of policy controversies involves the prevention of industrial growth in areas that may be irreparably damaged.

Underneath this controversy is another set of issues. The primary reason for most environmental policy is to protect the environment and the public. In most U.S. cities, it is now fairly easy to establish which communities bore the brunt of cumulative and synergistic risks. These communities are now shown to have a disproportionate adverse reaction to environmental stressors, expressing itself in a number of physical ways, such as childhood asthma. New environmental policies such as sustainability and the precautionary principle will require information about past environmental conditions, but the question of reparative public health intervention for proximate communities is left dangling. This is also known as the canary-in-the-coal-mine phenomenon.

Currently, the National Environmental Justice Advisory Committee is meeting with the EPA to recommend ways to limit or mitigate harms to local communities from increased emissions of particulate matter and nitrogen oxide due to increased trade and movement of goods and related transportation infrastructure growth. Some feel that this will focus attention on commercial marine and locomotive engines and their emissions, a current point of contention between environmentalists who want much stricter standards and industry that resists regulation. Ports, railroad depots, airports, and truck depots all create pockets of emissions, and many suspect these disproportionately affect low-income people and people of color. Concern over the impacts of the movement of goods has increased due to recent and projected increases in foreign trade. The assumption is that this increase will require substantial transportation expansion from coasts and ports to inland destinations, likely affecting many environmental justice communities that are already disproportionately affected by past and present pollution. It may be a sign of progress in some areas that the canaries in the coal mine are actively resisting all activities that increase their pollution exposure. It promises to be a significant environmental justice issue in the near future, especially as scientists begin to explore the ecological restoration of coastal waters and rivers. Environmental information will be highly scrutinized, there will be scientific debate about risk and causality, and government regulators will eventually enforce much stricter emission standards at multimodal transportation hubs.

EPA ENVIRONMENTAL JUSTICE SHOWCASE COMMUNITIES

In November 2009, EPA Administrator Lisa P. Jackson announced a national initiative to address environmental justice challenges in 10 communities. The agency allotted $1 million to this effort over the ensuing two years. The amount is relatively small, but the funds are intended primarily as a means of helping communities to organize resources and devise solutions, not as a final remedy for the environmental justice issues facing them.

According to Jackson, "these 10 communities will serve as models for the EPA's committed environmental justice efforts, and help highlight the disproportionate environmental burdens placed on low-income and minority communities all across the nation."

The selected Environmental Justice Showcase Communities will use collaborative, community-based approaches to improve public health and the environment. EPA will provide $100,000 per project to help address concerns in communities disproportionately exposed to environmental risks. These demonstration projects will test and share information on different approaches to increase EPA's ability to achieve environmental results in communities.

The following locations will serve as Environmental Justice Showcase Communities:

Bridgeport, Connecticut: EPA will build on work that has already taken place to develop community capacity and engagement, identify a broad network of partnerships, and connect with the goals of the city government. Using this past work as a foundation, EPA plans to work with a variety of stakeholders to develop projects focused on improving indoor air quality, increasing community capacity for green jobs, increasing recycling rates, and reducing asthma and toxics exposure.

Staten Island, New York: EPA will work with the North Shore of Staten Island, a former industrial community that now contains many abandoned, contaminated, and regulated properties along the waterfront. This neighborhood has seen an increase in the number of kids with elevated lead levels in their blood. EPA, in consultation with key community members and state and local health agencies, will develop a community-based health strategy for the area.

Washington, D.C.: EPA is building on its environmental justice work with a variety of partners, such as the District Department of Environment, the District Department of Health, and local recipients of environmental justice small grant awards.

Jacksonville, Florida: EPA will focus on improving environmental and public health outcomes in an area that consists of a predominantly low income and minority population. This area has a number of Superfund sites, brownfields, vacant and abandoned lots or other properties where contamination is suspected, and impacted waterways. EPA will work with its partners, including environmental justice community representatives, to address sites of concern and turn them into an opportunity for residents to collaborate with developers and revitalize their neighborhoods.

Milwaukee, Wisconsin: EPA will work to further the redevelopment of the 30th Street Industrial Corridor. The corridor, a former rail line in the north-central part of the city, is

home to low income communities of color. This project seeks to improve the human, environmental and economic health of these neighborhoods by redeveloping brownfields along the corridor, implementing environmentally preferable storm-water management practices, and developing urban agriculture.

Port Arthur, Texas: EPA has proposed a "cross-media" pilot project in Port Arthur, Texas, a racially and ethnically diverse population along the Gulf Coast of southeast Texas. This community was severely impacted as a result of hurricanes Katrina, Rita and Ike. Through the EJ Showcase Project, EPA will work with partners to strategically target additional work and supplement ongoing efforts.

Kansas City, Missouri and Kansas City, Kansas: EPA has identified 11 neighborhoods in the metropolitan area that have many risk factors including poor housing conditions and increased exposure to environmental hazards. EPA will conduct an assessment to identify specific sources of pollution and will work with neighborhood leaders to prioritize community concerns. Strategies to address these concerns will be developed through these partnerships.

Salt Lake City, Utah: EPA has chosen six neighborhoods in central and west Salt Lake City as the focus of a Children's Environmental Health and Environmental Justice initiative. The areas include Glendale, Jordan Meadows, Poplar Grove, Rose Park, State Fairpark, and Westpointe. EPA selected the areas based on the presence of several environmental risk factors and the community's support and past participation in addressing environmental issues. The multi-agency initiative will seek to identify and reduce children's exposure to contaminants from multiple pathways. EPA will work closely with the community and other federal, state and local agencies to identify issues of concern and develop and apply tools to address those issues. The state of Utah has developed a tracking system that will provide baseline health and environmental data and help the partnership achieve results.

Los Angeles Area Environmental Enforcement Collaborative, California: The densely populated communities closest to the I-710 freeway in Los Angeles County are severely impacted by pollution from goods movement and industrial activity. In a multi-year effort, a collaboration of federal, state and local governments and community organizations will work to improve the environmental and public health conditions for residents along this corridor. Partners will identify pollution sources of concern to the community, review agency data sources and develop action plans. One goal is to improve compliance with environmental laws by targeting inspections and enforcement at the state, federal, and local levels to address community concerns.

Yakima, Washington: EPA will address multiple environmental home health stressors in the Latino and tribal communities in the Yakima Valley. A coordinated effort between state, local, and non-profit partners will be used to address the range of exposures found in the community, with a primary focus on reducing exposure through contaminated private well drinking water. This will be accomplished by assessing homes with contaminated wells, providing "treatment at the tap" mitigation, and reducing pollution sources through available regulatory tools and best management practices.

See also **Children and Cancer; Cumulative Emissions; Deep Ecology and Radical Environmentalism; Social Justice (vol. 2)**

Further Reading

Bullard, Robert D., ed., *Growing Smarter: Achieving Livable Communities, Environmental Justice, and Regional Equity.* Cambridge, MA: MIT Press, 2007.

Faber, Daniel, *Capitalizing on Environmental Injustice: The Polluter-Industrial Complex in the Age of Globalization.* Lanham, MD: Rowman & Littlefield, 2008.

Rhodes, Eduardo Lao, *Environmental Justice in America: A New Paradigm.* Bloomington, IN: Indiana University Press, 2003.

Schrader-Freschette, K. S., *Environmental Justice: Creating Equality, Reclaiming Democracy.* New York: Oxford University Press, 2002.

EPIDEMICS AND PANDEMICS

Jessica Lyons and Debra Ann Schwartz

The difference between an epidemic and a pandemic rests on the extent to which a disease spreads. When an infectious disease appears in a location where it is not normally present and affects a large number of people, it is known as an *epidemic.* Epidemics can last weeks to years. They are temporary and will eventually disappear. Epidemics are also localized, appearing in villages, towns, or cities. When an infectious disease with these characteristics spreads throughout a country, continent, or larger area, it is known as a *pandemic.* History has documented numerous epidemics and pandemics, including recent outbreaks of H1N1 (swine flu) and severe acute respiratory syndrome (SARS), a serious form of pneumonia. For its long, varied, and at times dramatic history, smallpox, also known as variola, provides an excellent case study in epidemics and pandemics and the debates and issues that surround them.

Early Vaccines

In 430 B.C.E. the population of Athens was hit hard by an unknown plague. The plague, documented by Thucydides, claimed approximately one third of the population. Some contemporary historians speculate that this unknown plague was actually smallpox. Similar plagues thought to be smallpox continued to appear throughout the Roman Empire from 165 to 180 B.C.E. and 251–266 B.C.E. What we now know as smallpox entered western Europe in 581 C.E., and eventually its presence became a routine aspect of life in the larger cities of Europe, such as London and Paris, where it killed 25 to 30 percent of those infected. By the 18th century, smallpox was certainly endemic and responsible for an average of 400,000 deaths per year in Europe and the disfigurement of countless additional individuals.

In 1718 Lady Mary Wortley Montagu brought the practice of variolation to England from Turkey. The procedure was quite simple: a needle was used to scratch a healthy individual's skin, just breaking the surface; a single drop of the smallpox matter was added to the scratch and then loosely bandaged. If this was performed successfully, the individual would progress through an accelerated and mild case of smallpox, resulting in no scars and lifelong immunity.

The mortality rate for smallpox acquired in this manner was 1 to 2 percent, a considerable improvement over smallpox caught in the natural way, which had a mortality rate between 10 and 40 percent. When she returned to England, Lady Montagu variolated both of her children.

Most of London's well-to-do society recoiled in horror at the act of purposely giving an individual the pox. As a result, Lady Montagu was ostracized by all except her closest friends. Her actions sparked hot debates in the chambers of the London Royal Medical Society over the ethics of deliberately exposing an individual to smallpox, of the efficacy of the procedure, and of the methods of the procedure itself. Given the known mortality rate of smallpox and the success of Lady Montague's variolation on her children, however, it was not long before others began requesting that the procedure be performed on themselves and their children. After smallpox claimed the life of Queen Mary in 1692 and almost killed Princess Anne in 1721, members of the royal family became interested in the potential of variolation, influencing the opinions of the royal physicians.

Before members of the royal family could be subjected to the procedure, royal physicians demanded proof of the procedure's success through human experimentation. Several inmates scheduled to be hanged at Newgate Prison, London, who had not had smallpox, as well as one individual who had already had the pox, were chosen and subjected to the procedure. It is not known whether these subjects were chosen or if they volunteered, although it seems doubtful that they would have had a choice in the matter. The manner in which the experiment was performed would certainly be condemned by modern scientists as well as ethicists. The subjects were kept together in a separate cell and monitored daily by physicians. A constant stream of visitors, both medical and civilian, came to observe the infected prisoners in their cell. After all the subjects had made full recoveries, the procedure was considered successful as well as morally acceptable. It is interesting to note that in England, variolation required a specially trained physician, whereas in Turkey, where the practice originated, the procedure was generally performed by an elderly woman in the village.

The case of smallpox raises a number of issues concerning diseases that reach epidemic and pandemic levels. The introduction of a non-Western medical procedure by a nonprofessional, Lady Montagu, created a considerable amount of contention among physicians of the time. Although its long local history in Turkey, as well as its use by Lady Montagu's private physician, indicated that the procedure was successful, it was not until after the favorable outcome of an "official" experiment, executed under the auspices of the

London Royal Medical Society and royal physicians, that the procedure was considered both safe and effective. Individuals who sought to practice variolation put themselves at risk of bodily harm from citizens driven by fear and panic. This was the case until local authorities determined that the practice was safe.

Morally Reprehensible in America

Around the same time, medical controversy spread to America, specifically to Boston. The Reverend Cotton Mather is generally credited with bringing variolation to North America, having "discovered" the practice after a discussion with his slave who responded, "yes…and no" when asked if he had suffered the pox. This slave, Onesismus, provided Mather with the details of variolation as performed by his relatives in Africa. However, it was actually Dr. Zabdiel Boylston who performed the procedure. Whereas Mather might have publicly supported variolation, it was not until several months after it had been in practice that he allowed his children to be variolated, and then it was done in secret.

Boylston, on the other hand, was open with his actions and suffered from repeated threats of imprisonment from the government as well as mob violence. The act of purposely giving an individual such a deadly infection was considered morally reprehensible by both citizens and public officials, regardless of its potential positive outcome. The uproar in Boston over variolation reached fevered levels, with some individuals supporting the practice and others supporting a ban. At various times the selectmen of Boston forbade individuals to enter the city for the purpose of variolation and then banned the procedure itself. On at least one occasion, in an effort to find a legal reason to imprison Boylston, his home was searched by authorities looking for individuals who had purposely been infected by smallpox through variolation.

Eventually, fear of catching smallpox "naturally," combined with the apparent success of variolation and its popularity, forced the local government to legalize the practice. In fact, Boylston was even invited to England for an audience with the king, and he attended a number of variolation procedures during his visit.

Biological Weaponry

Although variolation was a potent weapon against smallpox, it was an expensive procedure; it cost the equivalent of as much as $500 today and was initially available only to the wealthy. As a result, by the time of the Revolutionary War, many Americans were still susceptible to the disease. This posed a problem for both America's soldiers and its civilians. Debates over variolation raged among the commanding generals of the American forces. Smallpox has a two-week incubation period, during which the individual is asymptomatic but still contagious. The possibility that individuals who had undergone the procedure might give smallpox to their fellow soldiers during the infectious incubation period and thus trigger an epidemic among the American forces initially made the

procedure look too risky. In 1777, however, George Washington ordered the variolation of the entire Continental Army to prevent further outbreaks of the disease.

British forces were largely immune to smallpox, almost all having been exposed as children. Those who had not been exposed were quickly variolated. During the Revolutionary War, the British crown promised freedom to any American slave who joined their forces. Being American, the majority of freed black slaves were not immune to smallpox. Many acquired it through variolation after joining British forces.

During the contagious incubation period, black patients were allowed to wander the countryside, passing through American villages and towns and leaving smallpox in their wake. Some historians believe that the British simply did not have the inclination or the resources to care for these individuals. Others, however, believe that this represented the deliberate use of a biological weapon by the British to spread smallpox to American citizens and troops.

In July 1763 there was a documented discussion among British forces, during the French and Indian War, of distributing smallpox-infected blankets to the local Native Americans. Whether the plan went into effect was never confirmed, but within six months of the exchange, a violent smallpox epidemic broke out among the local tribes.

The use of infectious diseases as weapons is not innovative. The oldest known use of a biological weapon occurred in the 14th century, when in an attempt to conquer the city of Kaffa, the khan of the Kipchak Tartar army ordered the bodies of plague (*Yersinia pestis*) victims to be catapulted over the city's walls. This event is cited as the catalyst of the Black Death, a pandemic that swept across Europe starting in the 1340s and lasting a century.

The Black Death is believed to have killed as much as one-third of the European population. During World War II, the Japanese attempted to test the effectiveness of such illnesses as *Y. pestis,* smallpox, anthrax, and typhus as biological weapons through experimentation on an unsuspecting Chinese population. It is not beyond the realm of possibility that smallpox, like other infectious diseases, could be weaponized and released, creating a pandemic. Smallpox vaccinations are effective for only 10 years; therefore almost all of the current world population has no immunity to the disease and would be susceptible to such an attack.

Crossing Species

In 1796, in an experiment that would never be permitted today, English doctor Edward Jenner purposely injected an eight-year-old boy with cowpox matter obtained from a pustule on a milkmaid's hand. Following this, he attempted to variolate the boy with smallpox. The results were astonishing. Cowpox, a relatively harmless infection passed from cows to humans, provided potent immunity from smallpox. From this experiment emerged *vaccinia virus,* the modern and more effective vaccine for smallpox. Although there were still skeptics, as illustrated by James Gillray's painting *The Cow*

Pock or the Wonderful Effects of the New Inoculation, which depicted individuals who were half-human and half-bovine, some individuals, including the British royal family, submitted to vaccination. By 1840, variolation was forbidden, and in 1853 vaccination against smallpox in Britain was mandated.

Even with these advancements in prevention, smallpox continued to rage into the 20th century. According to the World Health Organization (WHO), a subcommittee of the United Nations, by the 1950s there were still 50 million cases of smallpox each year. In 1967 the WHO declared that 60 percent of the world's population was still in danger of being exposed to smallpox, with one in four victims dying.

Controversy continued to surround smallpox well into the 20th century when an international group of scientists undertook the task of eradicating smallpox from the world permanently. In the 1950s the Pan American Sanitary Organization approved a program that allocated $75,000 annually toward the extermination of smallpox. In 1958, the WHO took over support of the program, but no action was taken until 1967. At that time the WHO approved $2.4 million for a 10-year program aimed at total eradication of smallpox.

Religion and Disease

Although scientists involved had the support of several international organizations, contention surrounded their project. Some of the most vehement protests were based on religious grounds. Numerous religions, from Hinduism to Christianity, argued that smallpox was divine intervention and judgment and that humans had no right to interfere. During the WHO's quest to eradicate smallpox, individuals who feared that meddling would cause divine retaliation went so far as to hide those suffering from smallpox or who had not yet been vaccinated by Western doctors, making it extremely difficult to treat all cases as the program required. Others disliked the idea of mandatory vaccination, believing that freedom of choice should prevail. The program was ultimately successful, however, and the United Nations declared the world free of smallpox in 1979.

Even though there has not been a reported case of smallpox in almost 30 years, its well-guarded existence in two government facilities continues to generate attention. Governments and organizations argue over the destruction of the last known smallpox specimens. Those arguing for its elimination cite the potential for accidental release onto an unsuspecting public, as well as the need to create an environment where possession and use of smallpox are considered morally reprehensible. Those who argue for its preservation cite its potential in helping future scientists to understand viruses better and the possibility of creating more effective and safer vaccines. Additionally, they question whether it is morally acceptable for humans to purposefully incite the extinction of another living organism. These questions have been debated for almost three decades, and the debate continues.

The implications for health care and disease control policy inherent in that debate is mired in the economic impact associated with epidemics and pandemics. Much

research pivots on ways to better assess how much it will cost to produce a vaccine, distribute it, and inoculate those infected. From archeoepidemiologic studies, researchers have helped the health care industry plan for the next influenza pandemic. For example, in 2009 signature features were clarified for three flu pandemics: A/H1N1 from 1918 through 1919; A/H2N2 from 1957 through 1963; and AH3N2 from 1968 through 1970. This detail is expected to contribute to both national and international plans for curbing the disease, drawing international collaboration once again into the health care policy arena.

Lawsuits investigating the line between individual rights and those of the public appear in this arena as well. The recent advent of SARS, swine flu and HIV/AIDS has heightened awareness about dual loyalty conflicts health professionals face when trying to contain epidemics and pandemics. Ethical clashes surface when, for example, a health professional decides it is in the best interest of public health to restrict individual liberties. That might include putting individuals in quarantine when infectious, or revealing to public health authorities confidential information about a patient's sexual partners or health status. Debate continues to offer suggestions for managing dual loyalty conflicts when diseases reach epidemic and pandemic levels.

Conclusion

Disease and the possibility of epidemics and pandemics emerged at the same time that humans began to give up their hunter-gatherer way of life and settle into large communities and cities. Although the specific name of the disease might be in question, these events have been documented in some way since the beginning of written communication. Controversy over treatment has been widespread. Heated debates over the use of eastern prevention and treatment methods in western cultures resulted in new laws, fines, and in some cases arrests. At times religious opposition has helped to spread particular diseases when individuals have refused medical treatment. The use of infectious diseases as biological weapons is always a possibility. This practice has been roundly condemned by the international community. It continues to create fear in the general public and affects decisions about how to manage a particular disease or virus. Once a lethal or contagious disease has been contained, ethical and moral questions inevitably arise as in how to manage the specimen.

See also **Food Safety; HIV/AIDS; Influenza; Vaccines; Globalization (vol. 1); Supply Chain Security and Terrorism (vol. 1)**

Further Reading

Carrell, Jennifer Lee, *The Speckled Monster: A Historical Tale of Battling Smallpox.* New York: Plume, 2003.

Cunha, Burke A., et al., "Swine Influenza (H1N1): Diagnostic Dilemmas Early in the Pandemic." *Scandinavian Journal of Infectious Diseases* 41, no. 11 (2009): 900–902.

Fenn, Elizabeth Anne, *Pox Americana: The Great Smallpox Epidemic of 1775–82.* New York: Hill and Wang, 2001.

Gregor, Michael, *Bird Flu: A Virus of Our Own Hatching.* New York: Lantern Books, 2006.

Koplow, David, *Smallpox: The Fight to Eradicate a Global Scourge.* Berkeley: University of California Press, 2003.

Miller, Mark A., et al., "The Signature Features of Influenza Pandemics—Implications for Policy." *New England Journal of Medicine* 360, no. 25 (2009): 2595–2598.

Price-Smith, Andrew T., *Contagion and Chaos: Disease, Ecology, and National Security in an Age of Globalization.* Cambridge, MA: MIT Press, 2009.

Steel, John, et al., "Transmission of Pandemic H1N1 Influenza Virus and Impact of Prior Exposure to Seasonal Strains or Interferon Treatment." *Journal of Virology* 84, no. 1 (2010): 21–26.

Williams, John, "Dual Loyalties: How to Resolve Ethical Conflict." *South African Journal of Bioethics and Law* 2, no.1 (2009): 8–11.

World Health Organization, "Smallpox." *Epidemic and Pandemic Alert and Response (EPR).* http://www.who.int/csr/disease/smallpox/en

EUGENICS

Gareth Edel

Eugenics was the popular science and associated political movement for state control of reproduction, controversial for its association with the Nazi Holocaust and forced sterilization and racist policies in the United States. In its day it was legitimate science, but today it haunts any discussion of controlling fertility or heredity.

Development of the Field

Broadly considered, eugenics represented not only the scientific study of human heredity and the potential controls of the heredity of the population but also the policies that were created based on these scientific principles. Because of this dual nature, eugenics remains hard to define. Eugenics was a dominant social, scientific, and political philosophy for thinking about differences in population and public health, and controversial as it was even at the time, it represented the state-of-the-art thinking in the 1920s through 1940s. Despite these difficulties in definition, one thing that eugenicists (scientists, philosophers, politicians, and even Christian clergy) had in common was a belief that reproduction should be controlled based on social considerations and that heredity was a matter of public concern. Although both the set of scientific theories and the associated social movement that aimed at the control of human heredity have since been discredited, they were considered acceptable and scientifically credible in their time and have had a lasting impact. Eugenicists were among those who pioneered in the mathematical evaluation of humans, and their influence in turning biology into the quantitative science it is today should not be underestimated.

The eugenics movement reached the zenith of its influence in the 1930s and 1940s, having influenced public health and population control policies in many countries. Its credibility only slowly faded away, even after being popularly associated with the doctrines of anti-Semitism and genocide of the National Socialist Party in Germany during World War II. Because of this connection to the atrocities of World War II, it is easy to forget the extent to which eugenics was accepted as an important science in the United States, which had enacted policies based on its precepts.

The word *eugenics* (from the Greek for "well bred") was coined by Francis Galton in 1883. It represented his participation in a broad cultural movement focused on breeding and heredity throughout the educated middle class of England and the United States. Galton was inspired to work on evolution and heredity by considering the writings of his cousin Charles Darwin and the economist Thomas Malthus, who both had been key contributors to the popular interest in population-level studies in biology during the 19th century. Darwin's theory of evolution stressed the importance of variation within populations, whereas Malthus's work focused on the dangers of overpopulation. From a synthesis of their works, Galton proposed a new science that would study variation and its effect in human populations. Though classification systems based on race and other factors existed, Galton's work advanced and popularized the idea of differing hereditable traits and their potential dangers.

JOSEF MENGELE

Josef Mengele (1911–1979) is mainly remembered for his role as the "Angel of Death" in the Holocaust, supervising atrocities at the Auschwitz-Birkenau concentration camp during World War II, and then as a war criminal in hiding. What is less commonly known are his scientific motivations.

Prior to World War II, he had received his medical doctorate and researched racial classification and eugenic sciences in anthropology. Throughout the war, he provided "scientific samples" (largely blood and tissue samples from victims of the camp) to other scientists. Although he is singled out for his personal direction of the deaths of thousands, his participation in a community of scientists who are not considered war criminals remains controversial. Throughout the war, his position in the medical corps of the notorious military service of the SS kept him apart from colleagues at the prestigious Kaiser Wilhelm Institute, but many there and in the scientific community in the United States were in communication with him. His torture of prisoners was intended to expand German knowledge of such laudable topics as health and the immune system, congenital birth defects, and the improvement of the species.

It is difficult today to balance the dedicated scientist and doctor with the monster capable of cruelties to those he regarded as less than human, but this contrast is often repeated in the history of eugenics and frequently appears in the media when contemporary scientists and doctors seem to cross the line between help and harm.

Although best known for his work in eugenics and genetics, Galton was a Renaissance man. He studied and did research in mathematics, meteorology, and geography; served with the Royal Geographical Society; traveled widely in Africa; and was a popular travel writer. His groundbreaking work on statistics is recognized as some of the earliest biometry (or mathematics of biological variation); his work was crucial in the early development of fingerprinting as a criminal science. Although these activities seem disconnected, Galton's commitment to the idea that mathematical analysis and description would provide deeper understanding has lived on in genetics and biology.

The goal of eugenics both as a scientific practice and as a social philosophy was to avoid what was considered to be the inverse of natural selection, the weakening of the species or "dysgenics," literally "bad birth." As humanity became better able to take care of the weaker, and as wars and revolutions were seen to take a greater toll on the elites and the intelligent, the population was believed to be diminishing in quality. The argument suggested that as the physically fit fought in the two world wars, the disabled remained at home receiving government support, and as the smartest struggled to learn, public schools and factory work allowed the least well adapted to survive. Similarly, racial and economic differences were seen as promoting higher birth rates among these lower classes, whereas the "better born" were seen to be having too few children in comparison. Contemporary fears about birth rates in the developed world (i.e., Japan, France, and the United States) being lower than the birth rates in the less-developed world (i.e., India, China, and Latin America) suggest that these fears remain active.

THE FIRST INTERNATIONAL EUGENICS CONGRESS

Even before the dominance of eugenics at its height in the interwar years, interest was widespread, and the First International Eugenics Congress exemplifies how broad participation was in conversation on eugenics. The congress opened July 24, 1912, a year after the death of Francis Galton, and was presided over by Major Leonard Darwin, the last living son of Charles Darwin. Although his father had carefully stayed away from discussion of eugenics, Leonard was an avid eugenicist, interestingly the only supporter among Charles's five sons, as well as the least accomplished scientist among them. There were more than a thousand registered participants, including luminaries such as Winston Churchill, Thomas Edison, and the Lord Mayor of London. The congress participants argued over new theories and data and the scientific nature and study of heredity as well as the appropriate actions it suggested. Though there was not general agreement on much, there was a shared assumption that some sort of intervention was needed in reproduction and heredity for fear that the weak and undesirable might outbreed the strong and fit.

For Galton and other eugenicists, the disparity between who was reproducing and who should be reproducing demanded intervention. Galton envisioned many ways to intervene, but drawing on the metaphor of domestication and breeding of animals that appeared in Darwin's work, Galton favored what would later be called positive, as opposed to negative, eugenics. The positive–negative model is based on the distinction between encouraging the increase of the reproduction of the favored and preventing the reproduction of the inferior. Galton proposed incentives and rewards to protect and encourage the best in society to increase their birth rates. In the end most national eugenics policies were based on the negative eugenic model, aiming to prevent some people from having children.

Popularization of Eugenics

The control of reproduction by the state has a long history in practice and in theory, appearing in key political works since Plato's *Republic,* wherein the ruler decided which citizens would have how many children, and this history was often cited at the height of popular acceptance of eugenics. Public health, social welfare programs, and even state hospital systems were only beginning to be developed at the middle of the 19th century, and among the social and technological upheavals at the end of the 19th century was an increasingly strong movement to maintain public health through governmental controls. As a result, there was widespread support in the United States for policies that were seen as progressive. In this context, an effort to promote the future health and quality of the population by encouraging the increase of good traits while working to limit the replication of bad traits seemed acceptable.

Broad movements throughout Europe and the United States gave rise to the first public welfare systems and stimulated continued popular concern over evolution. Widely held beliefs about the hereditary nature of poverty and other negative traits led to fear that these new social measures would throw off the natural selection of the competitive world. These debates about welfare and its effect on the population still stimulate concern among citizens of the United States and elsewhere.

Because of popular acceptance and its utility in justifying a range of policies, eugenic science was agreed upon by a wide array of notables who might otherwise have been on different sides of issues. Among those who advocated some form of eugenic policy were President Franklin Delano Roosevelt, the Ku Klux Klan, and the League of Women Voters.

The complex relationship many public figures had with eugenics stems in part from the usefulness of using it as a justification because of its widespread support. Birth control advocate Margaret Sanger publicly supported a rational version of negative eugenics but may have done so only for the credibility she gained as a result. She and other advocates for access to birth control were taken much more seriously by policy makers because they connected the issue with the more popular eugenics movement. In this

MARGARET SANGER

Margaret Sanger (born Margaret Louise Higgins, 1879–1966) was a key figure in the birth and population control movement in the first half of the 20th century. Revered as a central figure in moving the country toward legalizing access to birth control in the United States, she remains a contentious figure for her advocacy of eugenics. Sanger, a nurse, was horrified at seeing women's deaths from botched back-alley abortions. Her sympathy for the plight of women led her to found the American Birth Control League, which would later be known as Planned Parenthood, and open the Clinical Research Bureau, the first legal birth control clinic. A prolific speaker and author, her works include *Woman and the New Race* (1920), *Happiness in Marriage* (1926), *My Fight for Birth Control* (1931), and an autobiography (1938). Although her work on birth control would have been enough to make her contentious, her political support for eugenic policies such as sterilization has led to a fractured legacy, and these beliefs are frequently used as a reason to discredit her more progressive ones. She died only months after the federal decision in *Griswold v. Connecticut* officially protected the purchase and use of birth control in the context of marriage for the first time.

light, Sanger's suggestion that the upper classes were able to get birth control despite the laws and that there was a need to change the laws to slow the breeding of the poor, who were unable to attain birth control, may be seen as a political as opposed to ideological choice.

Eugenics organizations and political movements were started in Germany in 1904, Britain in 1907, and the United States in 1910. At the height of the era of eugenics, there were more than 30 national movements in such countries as Japan, Brazil, and others throughout Europe. In some countries coercive measures were rejected; in others policies were more limited, but in each country the adoption of national eugenics programs and popular movements represented an attempt to modernize and adopt scientific methods for advancing the health and well-being of the populace as a whole. Even the most notorious case of eugenics, the Nazi Germany eugenics program, was associated with discussion of the "greater good." It becomes easy to forget that the Nazi obsession with a healthy nation led not only to genocide but also to national campaigns for healthy eating and the elimination of criminal behavior.

The German eugenics laws were capped by the three Nuremberg Laws in 1935 that signaled the beginning of the Nazi genocide, aimed at "cleansing" the German nation of "bad blood" through negative programs including sterilization and executions while also promoting increased reproduction of those with "good blood" in positive eugenics programs. The Nazi eugenics program sterilized nearly 400,000 people based on the recommendation of the Genetic Health and Hygiene Agency for what were considered hereditary illnesses, such as alcoholism and schizophrenia. Probably the most notorious

THE JUKES AND THE KALLIKAKS

Richard L. Dugdale's 1874 book *"The Jukes": A Study of Crime, Pauperism, Disease and Heredity* and Henry Herbert Goddard's 1912 account *The Kallikak Family: A Study in the Heredity of Feeble-Mindedness* are key examples of what were known as family studies, powerfully convincing stories of the danger of bad heredity that were widely circulated in the first half of the 20th century. Both stories follow the troubles of the members of a family and the passage of harmful traits generation to generation. Dugdale was a progressive, and in the case of the Jukes family, he suggested the problem family was one that demanded rehabilitation, whereas Goddard was more closely associated with the eugenics movement; he saw the problem as one of prevention. These stories were very important in the early days of genetics because they were influential in popularizing the heritability of traits regardless of environment. The comparison in the tale of the Kallikaks between the branch of the family who had been infected with the bad trait and their still pure and good relations resonated and spread the idea of a trait widely. In the end neither story has stood up to scrutiny, as historians have revealed manipulations and fabrications at their sources, but their influence is lasting nonetheless.

manifestation of positive eugenics on record was the Nazi program that paired SS soldiers with unmarried women of "good blood" to increase the birth rate for the benefit of the nation.

Sterilization in the United States

The U.S. program was already under way when the German eugenics program was still beginning, and though state governments in the United States eventually sterilized fewer people, their programs were used as a model by the Germans. The center of the eugenics movement in the United States was the Eugenics Records Office (ERO), located at the Cold Spring Harbor Research Center in New York. The ERO published the *Eugenical News,* which served as an important communications hub and was considered a legitimate scientific publication. By the late 1930s, more than 30 states had passed compulsory sterilization laws and more than 60 thousand people had been sterilized. In 1937 more than 60 percent of Americans were in favor of such program; of the remainder, only 15 percent were strongly against them. In discussions of sterilization, a common consideration was the growing system of institutions and residents. Sterilization was seen as a humane and cost-effective remedy for problems such as alcoholism when compared with lifelong incarceration, and these programs remained a key influence on the development of outpatient treatment for the mentally ill until well into the 1970s.

If there is any practice distinctly associated with the American eugenics movement, it is coerced and forced sterilization. Although Nazi doctors performed these procedures in far greater numbers, in light of the Holocaust their project loses its impact. But in the

United States, this same procedure remains shocking. Many of those who were sterilized were residents of mental hospitals and poorhouses who were forced to undergo the procedure. Others were voluntary or temporary patients at state hospitals. It is difficult to know how many sterilizations were performed and yet more difficult to confirm what percentage of those were coerced. Some patients intentionally sought sterilization as a form of birth control; others chose it as an avenue out of institutionalization; some were tricked or forced. Today documents show that some institutions told patients who were to be sterilized that they were going to have appendectomies; in these and other institutions, high rates of appendectomies were recorded. Forced or coerced surgery on a single individual today would seem shocking, but such procedures were legally mandated in some states for more than 50 years. Because those most likely to have been sterilized were the mentally ill and the indigent, we are likely never to know the full story.

Numerous court decisions challenged the legality of state sterilization, and although several state laws were struck down in court, the Supreme Court decisions in two key cases upheld what was considered a legitimate state interest. In the 1927 case *Buck v. Bell,* the Virginia statute requiring sterilization practices was upheld by the U.S. Supreme Court, and Chief Justice Oliver Wendell Holmes infamously wrote in the decision that the law was necessary because "three generations of imbeciles is enough." Carrie Buck, the plaintiff in the case, had been certified "feebleminded," as had her mother. When Carrie's daughter was "tested" at the age of one month and declared to be "feebleminded," Carrie Buck did have the presence of mind to question the diagnosis and did not want her to be sterilized, but the Court's decision came down against her. Although it was not publicized at the time, Carrie Buck's daughter received further intelligence testing when she was in her early teens and was determined to have above-average intelligence. Whereas many countries slowly rescinded eugenics laws over the course of the second half of the 20th century, in others the laws remain on the books without implementation. The United States and most of the Scandinavian countries are among those that never officially eliminated their eugenics laws, and many others still have public health and hygiene laws from the eugenics period that have simply been modified.

Eugenics and Inheritance

From the 1890s until the late 1930s, a series of laws intending to limit the entry of immigrants into the United States was associated with eugenics, and the laws became increasingly harsh. Although these laws were widely popular among some groups, their explicit racism and isolationism became a growing source of concern for others. This legal link between eugenics and racist immigration policy was associated with the earliest antieugenics responses. Eugenics had initially been associated with the public good and reform, but this association too was tarnished by accusations of racism. Growing segments of the population recognized eugenics as biased against the poor, as noneugenic reformers

made social conditions of poverty public and advocated for institutional reform rather than hereditary control of poverty.

In the United States in the late 1930s, in light of the growing upset about the association between eugenics and racism, reformers tried to shift the eugenics movements to a more moderate stance, and many mainstream eugenics groups moved away from hard-line positions. By the late 1940s, the increasing public awareness of Nazi atrocities pushed public opinion even more against eugenics, and the word started to lose its respectability. Eugenics laws were reframed by being called hygiene or public health laws. Many of the reform eugenicists joined other scientists working in the nascent field of genetics, and some were founding members of the American Society of Human Genetics when it was formed in 1948. Although the growing antieugenics sentiment slowly turned eugenics from a dominant scientific field into a discredited memory, scientists who had worked on heredity as eugenicists embedded their study of hereditary diseases and mental and moral traits within Mendelian genetics.

Throughout the rise of eugenics, there was no clear understanding of the mechanism of inheritance within the intellectual community. Although today we have a scientific consensus on the workings of the cell and the importance of DNA, little was known about the inner workings of reproduction and development at the turn of the century. Gregor Mendel (1822–1884) was a Czech monk and biologist whose experimental breeding of pea plants led to his developing a series of scientific laws regarding the segregation, parental mixing, and transfer of traits. The rediscovery and popularization of the work of Mendelian genetics offered an explanation based on finite internal properties of the cell, which appealed to some, but its laws did not appeal to Galton or many eugenicists who saw it as applying only to simple traits such as plant color. The emphasis in Galton's view was on formal Darwinism, the rate of reproduction, and the role of environment and external factors in sorting the fittest and removing the weak. Mendel's theory is no longer associated with eugenics, in part because one of its strongest supporters, geneticist Thomas Hunt Morgan, opposed eugenics, but many other key scientists involved in promoting the acceptance of Mendel's work were doing so because it so clearly defined heritability. It was a powerful argument for the lasting and finite specification of heritable traits, and it worked with the idea of eugenics, whereas other theories argued for more environmental impact and flexibility. Although today there is reason to believe that Mendel's laws oversimplify a more complicated phenomenon, the rediscovery and embrace of these ideas by eugenic science was instrumental in the founding of genetics.

In the early 1970s, around the time the last of the eugenics laws were enacted and only a few years after the latest forced sterilizations in the United States, references in popular press, media, and news sources that suggested that genetic causes of mental and moral defects were at an all time low. In the last 30 years, there has been a steady increase in popular awareness of and interest in genetics and a dramatic resurgence of reference to genetic causes of traits. Between 1975 and 1985, there was 200-fold increase in public

references suggesting a genetic cause for crime, mental capacity or intelligence, alcoholism, and other moral and mental traits that had been central concerns under eugenics. This level of interest increased fourfold by the early 1990s and has not decreased. These issues are magnified today in areas where population growth adds to economic and social pressures. Where the use of technology for sex selection and choice of appropriate qualities of one's offspring becomes more active, it leads to controversy. In India and China, the perceived need to extend control to practices and technologies of heredity has garnered accusations of a new eugenics in media coverage.

Lasting interest and study of eugenics is due to its connection to two perennial questions. First, it asks how much of and what parts of who we are come from our heredity, often described as the debate between nature and nurture, and second, how a society should determine, react, and respond to undesirable traits of individuals. These two questions are interlinked in that a trait that is learned may be unlearned, but biological traits have been assumed to be innate and unchangeable, leading to different sorts of responses from society and law.

Today major news sources and media outlets eagerly publicize front-page stories on new scientific findings based on a widespread interest in genetics and biological traits, such as "gay genes" causing homosexuality or "alcoholic genes" passed along from father to son, but few place the corrections and negative evaluations of these findings in view when they are discredited. Stories run about genes that cause diseases such as breast cancer, without discussing any connection to what can be done in response to these discoveries or their connection with the discredited science of eugenics. Little discussion takes place about why these genes are looked for or what good knowing about them does in a culture that emphasizes individual accomplishment as surpassing heredity in determining one's life story.

We do not often ask how a history of eugenics has contributed to the demand for genetic explanations and medical testing today, but the idea of heredity, of unchangeable inherited traits, continues to hold particular power despite or because of its importance at the founding of genetics. One explanation is to be found in the American ethos and legends of the self-made individual. The idea that all people start from a clean slate is ingrained into American society, and the American dream of the ability of anyone to work hard and get ahead is challenged by the failure of so many hard workers to get ahead. The persuasiveness of inherited cause for success or failure shifts the discussion away from systemic environmental constraints on success such as racism, sexism, and class, allowing the focus to remain on the individual. Another concept frequently connected to eugenics and to contemporary genetics is the idea of the easy solution, as exemplified in the lasting presence of the 1950s "better living through chemistry" mentality of the single-drug cure. How much easier to imagine fixing one gene, one trait, than to think through the myriad of causes that might otherwise contribute to something we want to change.

Recent Developments

With the successes and promises for the future of molecular biology and genetic engineering, we are offered new avenues and a new reason to rekindle interest in heredity. The eugenicists believed that heredity was important as a predictive and evaluative tool but did not have the means to alter the traits they attempted to study, whereas contemporary innovations promise to offer the potential to act upon those traits determined to be harmful.

Today approximately 1 in every 16 babies in the United States is born with some birth defect, and although the impacts range in severity, the common conception is that any abnormality or defect creates a victim and represents part of a public health problem. Thinking about the victims of genetic disease, it is very tempting to consider a return to state control or even a voluntary eugenics where parents make the choice presented by their doctor. It is this eugenics of choice that has emerged today. As prenatal tests have been improved and are more widely practiced, they are sometimes compared with eugenics. Amniocentesis, in which genetic testing of unborn babies is performed, has been frequently connected to this history because, for most anomalies found, there is no treatment, leaving parents only with the choice to abort or not. Abortion has been connected with eugenics since Margaret Sanger and others championed birth control legalization at the turn of the century. Medical methods of abortion have become more sophisticated, but fertility control methods have been a presence in most human societies in one form or another and always involve the question of what sort of person the child will be and what sort of life the child will have. Explicit mentions of eugenics in contemporary discussions of abortion appear on both sides: prochoice advocates are concerned about excessive government control of fertility, and antiabortion activists attempt to use eugenic associations with abortion and to compare such procedures with the Holocaust. The language of eugenics is used on both sides to discuss the differential access and use of abortion between the wealthy and poor, between black and white, what sort of people are having abortions, and who is discouraged or encouraged to have children.

The hygiene laws of the first half of the century have faded, and today public health regulations in many states require blood tests before marriage so that couples may be better prepared to choose in having children when they carry some traits. But who decides what traits are to be tested for? If the core of eugenics was a belief that society or the state has an interest in heredity, do we still practice eugenics?

Contemporary premarital blood-test regulations parallel some of the aims and content of the eugenic hygiene laws, though frequently the underlying motivation may be different. In the early part of the 20th century, these rules were enacted based on eugenic arguments against urbanization and growing populations of immigrants and poor and on notions of social purity that we no longer articulate. In recent years, fear of HIV/AIDS and conceptions of personal risk may have taken their place. More than 30 states

have evaluated legislation requiring premarital HIV screening, and states including Illinois, Louisiana, Missouri, and Texas have passed such laws. Although later concerns over privacy and the damage done by false positives led all these states to eliminate the laws, some of the state laws had gone so far as to ban marriage for those who had AIDS. While the fear at the heart of this social crisis has passed, we cannot say what is yet to come. Neither were these HIV/AIDS laws unusual; many states still require blood tests for other diseases if one wishes to receive a marriage license, and—in an echo of eugenics—some regulations exempt those who are sterile or forbid marriage until treatment for sexually transmitted diseases has been received.

How will recent court decisions that have legally limited parental rights during pregnancy—for instance criminalizing drug use as child abuse—be expanded as society maintains its claim on control of fertility and heredity, and through them a definition of what sorts of control may be acceptable to society?

See also **Biotechnology; Genetic Engineering; Human Genome Project; Medical Ethics; Reproductive Technology**

Further Reading

Curry, Lynne, *The Human Body on Trial: A Handbook with Cases, Laws, and Documents.* Santa Barbara, CA: ABC-CLIO, 2002.

Duster, Troy, *Backdoor to Eugenics.* New York: Routledge, 1990.

Forrest, Derek Williams, *Francis Galton: The Life and Work of a Victorian Genius.* New York: Taplinger, 1974.

Gould, Stephen Jay, *The Mismeasure of Man.*(New York: Norton, 1981.

Kerr, Anne, and Tom Shakespeare, *Genetic Politics: From Eugenics to Genome.* Cheltenham, UK: New Clarion Press, 2002.

Kevles, Daniel J., *In the Name of Eugenics: Genetics and the Uses of Human Heredity.* New York: Knopf, 1985.

Kluchin, Rebecca M., *Fit to Be Tied: Sterilization and Reproductive Rights in America, 1950–1980.* New Brunswick, NJ: Rutgers University Press, 2009.

Knowles, Lori P., and Gregory E. Kaebnick, *Reprogenetics: Law, Policy, Ethical Issues.* Baltimore, MD: Johns Hopkins University Press, 2007.

Rubenfeld, Sheldon, ed., *Medicine after the Holocaust: From the Master Race to the Human Genome Project.* New York: Palgrave Macmillan, 2010.

F

FEDERAL ENVIRONMENTAL LAND USE

Robert William Collin and Debra Ann Schwartz

Access to public lands plays an increasing role in the exploration and development of hydrocarbon resources and other uses such as recreation. Federal environmental land-use planning is extensive and dictates which lands will be available for leasing and what kind of restrictions will be placed on use of those lands. Public lands are also leased to ranchers, loggers, and miners for natural resource use and grazing. These uses are considered harmful to the environment. Many tenants on public lands have a sense of entitlement due to generations in a given profession, such as ranching or logging, in one place. Many environmentalists press for laws that force the federal government to use these lands sustainably with little or no environmental impact.

Public Landholdings of the U.S. Government

The federal government owns about 29 percent of the land in the United States. There is a maze of federal agencies, and some landholdings controlled by the federal government are not public lands. Four federal agencies administer most of the 657 million acres of federal land. The National Park Service (NPS), the Fish and Wildlife Service (FWS), the Bureau of Land Management (BLM) in the Department of the Interior, and the Forest Service (FS) in the Department of Agriculture make most of the environmental and land-use decisions. The majority of federally owned land (92 percent) is in 12 western states.

One is Utah, where Governor Gary Herbert signed two bills in March 2010 authorizing the state to exercise eminent domain over federal lands. This is clearly unconstitutional, a style of law practiced in several western states including Arizona. Utah legislators set aside $3 million to litigate the frivolous claims the move is expected to generate. They did so at a time of budget shortfalls and other economic burdens taxpayers in the state face.

Challenging Assumptions: Federal Government and Taking of Private Property

Land-use regulation in the United States is done mainly by local government with state oversight. Although the federal government has eminent domain power to control land, it is not exercised at the local level. The federal government has long played a powerful role in local land-use decisions.

Development has scarred U.S. landscapes and destroyed ecosystems. Much of the environmental damage resulted from the federal government's environmental land-use decisions. People are allowed to place developments on federal lands in places that are subject to natural hazards such as fires and avalanches. They are allowed to mine, log, and graze livestock on federal lands in wildlife areas. The most damage is done by the construction of roads needed by loggers, oil drillers, miners, and ranchers. Where the roads go, development often follows. Abuse and lack of federal enforcement of these uses creates and continues to create severe threats to wildlife and wilderness habitat. The Everglades, farmlands where streams and grasses have been ravaged by farm policies, and watersheds degraded by abuse and pollution are some examples.

For 80 years, the federal government has regulated grazing rights across millions of acres of federal land in the West. It has been a controversy between preserving a rural way of life and responding to a growing environmental concern that values watersheds and biodiversity.

Recent regulations make it easier for ranchers to use federal lands without concern for environmental impacts. The new rules give ranchers more time, up to five years, to reduce the size of their herds if the cattle are damaging the environment. Proving that the herds are damaging the environment is a difficult proposition because the ranchers do not let people onto the federal land, treating it as if it were their own private property. Without being able to access the environment, it is impossible to discover abuses and ecological damage until it is severe. The George W. Bush administration gave shared ownership in the water rights and some structures on federal land to private ranchers. The regulations also decrease the opportunities for public involvement in deciding grazing issues on federal lands.

Critics note that the mining, logging, and federal grazing programs cost the United States because they lease areas at below-market rates. It is no simple matter to determine the cost to the United States of the subsidized industries operating on

SCIENTISTS RETALIATED AGAINST FOR RANGE MANAGEMENT REPORT

A major part of federal land management is ranching. Ranches are leased to private corporations and individuals, and these leases are enforced by the landlord—the U.S. federal government. This federally owned land dominates the environment in many western states. These leases cover vast tracts of land and are often controlled by long-term leases held for generations in some communities. Reports from government scientists on the environmental impact of ranching on federal lands are controversial because they stand up to powerful vested special-interest ranching industries. These government reports may be the only reliable information available about the environmental condition of our federal lands because ranchers treat this land as private property. Ranch management scientists work for the federal government and the ranchers to increase the productivity of the range for ranchers. Traditionally they have not focused on ecological preservation or accurate and cumulative environmental impacts. When the environment is rapidly degrading, the productivity of the range for ranchers goes down. These government reports are very powerful documents because they put limits on the abuse of natural resources in federal lands. Some government biologists say the George W. Bush administration interfered with the science of range management to promote its proranching agenda.

In one internal report released to the media, scientists reported that "the cumulative effects . . . will be significant and adverse for wildlife and biological diversity in the long-term." "The numbers of species listed or proposed for listing under the Endangered Species Act will continue to increase in the future under this alternative." According to the government range scientists, that language was removed from the scientific analysis that accompanied the new grazing regulations.

There are many environmental controversies around government scientists about government censure and misrepresentation. In many environmental controversies scientists follow principles and ethics, often to their own personal detriment in terms of careers and professional black listing. Sometimes government scientists can find protection under a law called whistleblower protection. These are rules and laws designed to protect the independent professional judgment of scientists and other professionals such as lawyers, engineers, and accountants employed by the U.S. government. They coincide with the professional ethics of a given profession because exercising independent professional judgments is the essence of being a professional. The two previous scientists made their statements after they retired. Other scientists in government are laterally transferred. The effectiveness of the whistle-blower protection laws is controversial. They apply only to government professionals. Scientists' ability to exercise independent professional judgment is a very important consideration, especially in the context of federal environmental land-use planning. The manipulation of environmental facts for profit compounds the intensity of this battleground.

federal lands. Part of the cost is the mitigation and cleanup of their environmental impacts. It is a cost that the responsible industries will not voluntarily bear, that the small western communities cannot afford, and that western states allow. Over the last 80 years or so the cumulative environmental effects of large- and small-scale resource exploitation operations on federal lands may begin to undermine their mission of conservation and environmental protection.

Other Uses

In the late 1990s, the Clinton administration allowed the patenting of life forms for the first time in history. That decision had an effect on national park land. It permitted private interests to mine for enzymes, for example, in geyers and hot springs in Yellowstone National Park. Opponents of the practice complained that the nation was not compensated for the takings. They also contended that mining of natural resources was never before permitted in national parks, though support for that position is arguable.

Pharmaceutical companies have a strong interest in the microorganisms taken out of natural resources, as they may be altered slightly and patented. Opponents of this kind of federal land use argue that if this kind of mining is going to be allowed, the public should benefit from any related sales. The money, they argue, could support the park or go toward acquiring more land to protect and conserve as habitat, for ecosystem balance, and the like.

Conclusion

Communities that developed around timber and mining want those jobs to survive and with them a comfortable way of life. Concessions in federal land areas such as national parks exert a strong voice in policy debates about what is more important: ecological communities or human communities. On a national level, environmentalists and proponents of sustainability want the federal landholdings to lead the way in environmental policy development. They press for ecosystem risk assessment, environmental impact statements, and limited environmental impacts. Some demand wilderness areas and then press for the reintroduction of wolves and grizzly bears. Many other diverse federal land users want more access to federal lands. They include snowmobilers, hang gliders, mountain and rock climbers, hunters, and surfers. All these groups have different environmental priorities that will be debated in future federal land policies.

See also **Endangered Species; Logging; Mining of Natural Resources; National Parks and Concessions; Stock Grazing and the Environment; Wild Animal Reintroduction**

Further Reading

Babbitt, Bruce, *Cities in the Wilderness: A New Vision of Land Use in America.* Washington, DC: Island Press, 2005.

Behan, Richard W., *Plundered Promise: Capitalism, Politics, and the Fate of the Federal Lands.* Washington, DC: Island Press, 2001.

Davis, Charles, ed., *Western Public Lands and Environmental Politics.* Boulder, CO: Westview Press, 2001.

Fretwell, Holly Lipke, *Who Is Minding the Federal Estate? Political Management of America's Public Lands.* Lanham, MD: Lexington Books, 2009.

Nelson, Robert H., *Public Lands and Private Rights: The Failure of Scientific Management.* Lanham, MD: Rowman & Littlefield, 1995.

Public Lands Foundation, www.publicland.org

Public Lands Information Center, www.publiclands.org/home.php?SID =/

Turley, Jonathan, "Utah Governor Signs Law Authorizing Use of Eminent Domain Over Federal Lands." *Salt Lake Tribune* (March 29, 2010). http://jonathanturley.org/2010/03/29/utah-governor-signs-law-authorizing-use-of-eminent-domain-over-federal-lands

Wilderness Society, www.wilderness.org

FOOD SAFETY

Nina E. Redman

Experts disagree about whether food is safer today than it was in the past, but they agree that ensuring safe food has become more complex than at any other point in history. Although we have solved many of the food safety challenges of the past, new problems have developed. We farm, live, and eat differently than we did in the past, and this creates new niches for food-borne illnesses to occupy. In addition, there are other potential threats such as food additives, pesticides, hormones in milk and cattle, overuse of antibiotics in farm animals, genetically engineered plants, and risks associated with bioterrorism.

History

As food safety issues have changed, so have society's methods for making food as safe as possible. Before manufacturing, traditional farming practices and preserving techniques were used to ensure safe food. During the industrial revolution, food began to be processed and packaged. Lacking regulation, manufacturers were free to add whatever they liked to their products. Sweepings from the floor were included in pepper, lead salts were added to candy and cheese, textile inks were used as coloring agents, brick dust was added to cocoa, and copper salts were added to peas and pickles (Borzelleca 1997, 44). In the 1880s, women started organizing groups to protest the conditions at slaughterhouses in New York City and adulterated foods in other parts of the country. In 1883, Harvey W. Wiley, chief chemist of the U.S. Agricultural Department's Bureau of Chemistry, began experimenting with food and drug adulteration. He started a "poison

squad," which consisted of human volunteers who took small doses of the poisons used in food preservatives of the time. Wiley worked hard to get legislation passed to regulate what could go into food. Meanwhile, Upton Sinclair spent several weeks in a meat packing plant investigating labor conditions and turned his discoveries into a book, *The Jungle,* published in 1906. Although the focus of that book was the conditions immigrants experienced in the early 20th century, there were graphic descriptions of the filth and poor hygiene in packing plants. These descriptions of packing plants—not the poor working conditions of immigrants—caught the public's attention. People began complaining to Congress and to President Theodore Roosevelt. Pressure was also mounting from foreign governments that wanted some assurances that food imported from the United States was pure and wholesome. Two acts were passed in 1906, the Pure Food and Drug Act and the Beef Inspection Act, to improve food safety conditions.

Regulation came only in response to problems: outbreaks and health hazards were followed by new laws. In 1927, the U.S. Food, Drug, and Insecticide Administration (the name was shortened to the Food and Drug Administration, or FDA, in 1930) was created to enforce the Pure Food and Drug Act. However, in 1937, over 100 people died after ingesting a contaminated elixir. The act proved to have penalties that were too light, and the laws were superseded in 1938 by the Pure Food, Drug, and Cosmetics Act. This act prohibited any food or drug that is dangerous to health to be sold in interstate commerce. The Public Health Service Act of 1944 gave the FDA authority over vaccines and serums and allowed the FDA to inspect restaurants and travel facilities. In 1958, concern over cancer led to the adoption of the Delaney Amendments, which expanded the FDA's regulatory powers to set limits on pesticides and additives. Manufacturers had to prove that additives and pesticides were safe before they could be used. The Fair Packaging and Labeling Act of 1966 standardized the labels of products and required that labels provide honest information. The next major act was the Food Quality Protection Act of 1996. It set new regulations requiring implementation of Hazard Analysis and Critical Control Points (HACCPs) for most food processors. (HACCP is a process where a manufacturing or processing system is analyzed for potential contamination, and systems are put in place to monitor and control contamination at crucial steps in the manufacturing process.) The Food Quality Protection Act also changed the way acceptable pesticide levels are calculated. Now total exposure from all sources must be calculated.

U.S. Department of Agriculture

Growing in parallel to the FDA was the U.S. Department of Agriculture (USDA). The USDA is responsible for the safety of most animal products. In the 1890s, some European governments raised questions about the safety of U.S. beef. Congress assigned the USDA the task of ensuring that U.S. beef met European standards. In 1891, the USDA started conducting antemortem and postmortem inspections of livestock slaughtered in the United States and intended for U.S. distribution. The USDA began

using veterinarians to oversee the inspection process, with the goal of preventing diseased animals from entering the food supply.

During World War II, more women entered the workforce and consumption of fast food increased. Ready-to-eat foods like processed hams, sausages, soups, hot dogs, frozen dinners, and pizza increased dramatically. The 1950s saw large growth in meat and poultry processing facilities. New ingredients, new technology, and specialization increased the complexity of the slaughter and processing industry. Slaughterhouses went from being small facilities to large plants that used high-speed processing techniques to handle thousands of animals per day. As a result, food technology and microbiology became increasingly important tools to monitor safety. The Food Safety and Inspection Service, the inspection arm of the USDA, grew to more than 7,000 inspectors. But because of the growth in the number of animals slaughtered and processed, it became impossible to individually inspect each carcass. Without individual inspection, governments and processors must rely on risk-assessment techniques and HACCP to manage these risks. Inspectors must now focus on the production line for compliance, and processing techniques must be strong to compensate for the lack of individual inspection (Schumann et al. 1997, 118).

Risk Assessment

There are several types of food risks. Eating too much of certain types of foods, such as fats, can be harmful. Eating spoiled or contaminated food can be very dangerous, even deadly. Pesticides and food additives can also pose risks. Risk assessment is the process of evaluating the risks posed and determining whether a food ingredient or pesticide can safely be consumed in the amounts likely to be present in a given food.

In order to compute risks, scientists must consider both the probability and the impact of contracting the disease. A disease with high probability but little impact is of less concern than a disease with high probability and high impact. The object is to either reduce the probability of contracting the disease or the severity of impact. Either action will reduce risk. To evaluate risks, a four-step process is used: hazard identification, exposure assessment, dose-response assessment, and risk characterization.

During the first step, hazard identification, an association between a disease and the presence of a pathogen in a food is documented. For example, contracting dysentery is associated with eating chickens contaminated with *Campylobacter jejuni,* a type of bacteria. Information may be collected about conditions under which the pathogen survives, grows, causes infection, and dies. Data from epidemiologic studies is used along with surveillance data, challenge testing, and studies of the pathogen.

After the hazard is identified, exposure is assessed. This step examines the ways in which the pathogen is introduced, distributed, and challenged during production, distribution, and consumption of food. Exposure assessment takes the hazard from general identification to all the specific process-related exposures. For example, chickens might

become exposed to *C. jejuni* by drinking unchlorinated water or from other chickens on the farm; the carcass might be exposed during defeathering or on the processing line; the number of pathogens may be reduced in number during the chilling step and increase in number during the packaging step. By examining potential exposure points, the pathogen population can be traced and the likelihood of it reaching the consumer can be estimated.

The third step, dose-response assessment, determines what health result is likely to occur when the consumer is exposed to the pathogen population determined in the exposure assessment step. This step can be very difficult because there may not be good data about what levels of pathogen exposure have health consequences. Another significant factor is the strength of the immune system of the particular consumer. Immune-compromised populations—such as young children, the elderly, AIDS patients, and chemotherapy patients—may react to lower exposure levels and have more severe health consequences.

Risk characterization, the final step, integrates the information from the previous steps to determine the risk to various populations and particular types of consumers. For example, children in general may have a different level of risk exposure than children who consume three or more glasses of apple juice per day. Computer-modeling techniques are often used in this step to ease the computational burden of trying many different scenarios (Lammerding and Paoli 1997). With so many variables, risk assessment does not produce exact, unequivocal results. At best it produces good estimates of the impact of a given pathogen on a population; at worst it over- or underestimates the impact.

Hazard Analysis and Critical Control Points

Hazard analysis and critical control points (HACCP) is a method of improving food safety developed by Pillsbury for the National Aeronautics and Space Administration (NASA) in the late 1950s. HACCP requires determining food safety hazards that are likely to occur and using that knowledge to establish procedures at critical points that will ensure safety. HACCP can be applied at any point in the food cycle from field to fork. The steps, which are modified for each setting, include analyzing the setting for potential problem areas, examining inputs to the system such as suppliers, determining prevention and control measures, taking action when criteria are not met, and establishing and maintaining recordkeeping procedures. Some settings require microbial testing for bacteria.

HACCP is very adaptable to different settings. Rangeland where cattle graze can be managed with HACCP techniques to prevent cattle wastes, which may contain parasites and other potential pathogens, from entering water supplies. The techniques used in this setting include managing stocking rates of cattle to maintain enough vegetative cover, excluding calves from areas directly adjacent to reservoirs, locating water and

supplemental feed away from stream channels, maintaining herd health programs, and controlling wild animal populations, such as of deer and feral pigs, that might contaminate the water supply. Regular testing of streams will indicate whether the measures are working, and whether further safeguards need to be undertaken.

Fruit and vegetable producers who grow foods that are often served raw must be especially careful. Their HACCP plans must include worker hygiene plans such as rules for regular handwashing and supplying clean field toilets, adequately composted manure so that pathogens from animal wastes are not spread, testing of incoming water sources, and control of wild animal populations to ensure contaminants are not infecting produce (Jongen 2005).

In a manufacturing plant, HACCP is very compatible with good manufacturing practices (GMPs) that include proper sanitation procedures. HACCP takes GMPs a step further by looking at other potential problem areas. For example, a juice producer following GMPs emphasizes fruit washing, plant cleanliness, and strict adherence to sanitary policies and procedures. To implement HACCP, the plant adds pasteurization to some products, ensures a cold chain by making sure the product always stays cold, and performs microbial testing to make sure the procedures are working.

Jack in the Box restaurants has developed HACCP to a highly refined system since the 1993 *Escherichia coli* outbreak that resulted from tainted meat from one of its suppliers. Now the restaurant chain does extensive microbial testing—testing the ground beef off the production line every 15 minutes. The distribution company has installed time- and temperature-recording boxes that record the temperature in the delivery trucks to ensure that the beef is always stored at the proper temperature (Steinauer 1997).

In retail food service operations such as restaurants, cafeterias, and in-store deli counters, recipes and procedures must be examined to make food as safe as possible. This examination could result in changing a recipe to ensure that foods that are added raw are chopped in a separate place from other items that are chopped before cooking. Suppliers are carefully examined, food is maintained at the proper temperature, and the length of time foods are left out is closely monitored. For example, a policy that unsold chicken nuggets will be thrown out every half hour might be implemented with a timer that beeps on the half hour. Employees might have to initial a log stating that they had disposed of unsold food.

HACCP has been mandatory since the 1970s for the low-acid canned food industry and went into effect for domestic and imported seafood processing in 1997. Meat and poultry processors had to implement HACCP plans in January 2000. Since requiring producers to implement HACCP plans, the USDA's Food Safety and Inspection Service (FSIS) and the FDA have used HACCP as a powerful tool to monitor contaminant levels and require changes to plans in order to reduce hazards. For example, in late 2003, after the FSIS required ready-to-eat-food processors to improve their HACCP plans, the FSIS released data showing that regulatory samples showed a 70 percent decline in the

number of samples testing positive for *Listeria monocytogenes.* And in October 2002, the FSIS required all raw beef processing plants to reassess their HACCP plans to reduce the prevalence of *E. coli* O157:H7 bacteria in ground beef. As a result, 62 percent of the plants made major changes to their processing lines. Percentages of regulatory samples testing positive dropped almost two-thirds from 0.86 percent in 2000 to 0.32 percent in 2003 (U.S. Department of Agriculture, Food Safety and Inspection Service 2004).

Epidemiology and Food-borne Illnesses

Most of what is known about food=borne illnesses started with epidemiology, the study of disease in a population. John Snow, a London physician, used deductive reasoning, research, and interviews in the 1880s to determine the cause of a cholera epidemic that had killed more than 500 people in one week. Scientists used Snow's techniques to investigate primarily infectious disease until the 1920s, when the field broadened to include clusters of all factors that apply to the incidence of disease among people.

Epidemiological techniques have improved over the years. In the 1970s, Dr. Paul Blake developed the case-control method. This method compares those who became ill with closely matched individuals who stayed well. By examining what those who became ill did differently from those who stayed well, the source of infection can often be revealed. In the case of food-borne illness, an ill person is questioned about where and what they ate and matched as closely as possible in age, health status, and eating patterns to someone who stayed well in an effort to pinpoint differences.

In the United States, the Centers for Disease Control and Prevention (CDC) works to help treat and prevent disease at the national level, and has increased its scope to lend epidemiological assistance worldwide because of the overlap between the developed and less developed worlds. The people who pick and pack fruits and vegetables in foreign countries that are imported to the United States are handling the U.S. food supply. If foreign workers have illnesses that can be transmitted through food, their illnesses have a direct bearing on our health.

Food-borne illness is most often linked to bacteria, but there are other agents that can cause food-borne illness, including viruses, parasites, prions, and molds. Bacterial illness is the most prevalent, but viruses and parasites are being spread through food more commonly than in the past. Each type of disease agent has different characteristics that must be considered in implementing food safety strategies.

Bacteria and Food

The Centers for Disease Control and Prevention estimate that 79 percent of food-borne illness is caused by bacteria. Bacteria, small microorganisms that do not have a nucleus, can replicate in food, water, or in other environmental media. Some bacteria do not grow well in cold temperatures, while others flourish. Some bacterial strains are extremely virulent, causing infection with as little as two bacteria. Other bacteria must be present

in large numbers to cause any problems. The most common way food-borne bacterial illness is transmitted is the fecal–oral route, where fecal matter from an animal or person contaminates foodstuffs. This contamination could result from inadequate handwashing, fecal matter from animals being transferred to meat during the slaughter or processing steps, or even unsterilized manure being used to fertilize crops. Harmful bacteria can also be carried in animals and, even without fecal contamination, can be present in meat or eggs.

One of the most helpful tools scientists have developed to investigate bacterial illnesses is DNA fingerprinting. Each strain of bacteria has a unique genetic fingerprint. By comparing bacteria from ill persons with bacteria from suspected foods, it is possible to definitively conclude whether that particular food is the causative agent of the disease. This tool has helped health departments tremendously to trace the source of infection and limit outbreaks. The following list identifies the major bacterial illnesses.

Campylobacter

Campylobacter is the most common bacterial food contaminant, prevalent in a variety of food animals but most often associated with poultry. Meat becomes contaminated when it comes in contact with fecal matter from an infected animal. In humans, *Campylobacter* can cause bacteremia (bacteria gets into the bloodstream), hepatitis, pancreatitis, septic arthritis (bacteria gets into the joints and causes stiffening), and Guillain-Barré syndrome (GBS).

Listeria

Listeria monocytogenes is a particularly pernicious bacteria found in soil and water that can survive refrigerator temperatures and even freezing. It can be found on some vegetables as well as on meat and dairy products. *Listeria* can cause septicemia, meningitis, encephalitis, and intrauterine or cervical infections in pregnant women that may cause miscarriages or stillbirths. Of the 2,500 cases reported annually in the United States, about 500 die.

Salmonella

Salmonella is the second most common source of food poisoning in the United States after *Campylobacter.* It is most often associated with raw eggs and undercooked poultry, although it also can contaminate vegetables, fruits, and other products. *Salmonella* generally causes sudden headache, diarrhea, nausea, and vomiting. Symptoms may be minor or severe, causing dehydration or even death. The CDC estimates there are 2 to 4 million cases each year resulting in 500 to 1,000 deaths. (U.S. Food and Drug Administration 2005). Some strains of *Salmonella* are becoming resistant to antibiotics.

Escherichia coli

Escherichia coli is a type of bacteria that thrives in our intestines and helps digest food. Most strains are beneficial, but a few release harmful toxins that can cause great discomfort and even death. There are four classes of *E. coli* that cause illness in humans, the most toxic being O157:H7. Scientists believe the toxin first destroys blood vessels in the intestines, causing bloody diarrhea. Most people recover, but about 2 to 7 percent develop hemolytic uremic syndrome (HUS). About 5 percent of those who contract HUS die, and many survivors of the disease are left with lasting problems such as diabetes, kidney damage, visual impairment, or a colostomy (Kluger 1998). *E. coli* O157:H7 is most commonly associated with cattle, transmission usually occurring during the slaughter process when fecal matter from the intestines can contaminate the meat. Heat kills the bacteria, but the cooking of meat must be thorough and must reach an internal temperature of 160 degrees Fahrenheit to be safe.

Shigella

Shigella causes a little less than 10 percent of all food-borne illness in the United States. Shigellosis (the disease caused by *Shigella*) can cause abdominal pain, cramps, diarrhea, fever, and vomiting. It is often found in prepared salads, raw vegetables, milk, other dairy products, and poultry (U.S. Food and Drug Administration 2005).

Yersinia

Yersinia pseudotuberculosis is rare in the United States but can be found in meats, including beef, pork, lamb, oysters, and fish, and also in raw milk. Although most people recover quickly from yersiniosis, about 2 to 3 percent develop reactive arthritis (U.S. Food and Drug Administration 2005).

Staphylococcus

Foods that require lots of handling during preparation and are kept at slightly elevated temperatures after preparation, including prepared egg, tuna, macaroni, potato, and chicken salads, and bakery products like cream-filled pastries, are frequently carriers of *Staphylococcus aureus.* The usual course of the disease is rapid onset of symptoms including nausea, vomiting, and abdominal cramping. Although the number of reported cases is relatively low (usually less than 10,000 per year in the United States), the actual number is probably much higher since many cases go unreported because the duration of the illness is very short, and the symptoms are not that severe (U.S. Food and Drug Administration 2005).

Clostridium perfringens

Clostridium perfringens is an anaerobic bacteria present in the environment and in the intestines of both humans and domestic and feral animals. Since the bacteria are so prevalent,

most foods are contaminated with it, especially animal proteins such as meat. However, the small amounts of *C. perfringens* in foods do not cause any problems unless the food is not cooled down quickly enough or stored properly. The CDC estimates that about 10,000 cases occur each year, most of them in institutional settings like hospitals, school cafeterias, prisons, and nursing homes. The illness causes intense abdominal cramps and diarrhea (U.S. Food and Drug Administration 2005).

Parasites, Viruses, and Aflatoxins

Perhaps the best-known parasite in the United States is *Trichinella spiralis,* a small roundworm found in raw pork that causes trichinosis. Early symptoms include diarrhea, vomiting, and nausea. These can be followed by pain, stiffness, swelling of muscles, and swelling in the face. Thiabendazole effectively kills the parasites in the digestive tract, and anti-inflammatory drugs can ease the symptoms (U.S. Food and Drug Administration 2005).

Although *Trichinella* has been well understood for years, it does not cause as much food-borne illness as three other parasites: *Giardia lamblia, Cryptosporidium parvum,* and C*yclospora.* These waterborne parasites can be transferred to food from infected food handlers or from contaminated water used to irrigate or wash fruits or vegetables.

Another source of parasites is raw seafood. The Japanese suffer from high rates of nematode infection resulting from high rates of consumption of raw fish. It occurs less frequently in the United States, where raw fish consumption is moderate. One of the worms, *Eustrongylides* species can be seen with the naked eye and causes septicemia. Other worms are much smaller. Well-trained sushi chefs are good at spotting the large parasites, but other techniques are necessary to protect against the smaller ones.

Blast freezing is one of the techniques that kills parasites. The USDA Retail Food Code requires freezing for all fish that will be consumed raw. The exception is tuna, which rarely contains parasites. Often fish get parasites from eating smaller fish that have the parasites. Fish raised in captivity and fed fish pellets rarely have parasites. High-acid marinades do not affect parasites, so they should not be used as a substitute for cooking or freezing (Parseghian 1997).

Viruses, like parasites, pose great problems for food safety because they are environmentally stable, are resistant to many of the traditional methods used to control bacteria, and have low infectious doses. So virtually any food can serve as a vehicle for transmission. It is not clear just how pervasive food-borne viral illnesses are, partly because viruses are difficult to test for. The most common viral diseases spread by food are hepatitis A and noroviruses.

Over one hundred dogs died early in 2006 from Diamond-brand dog food contaminated by aflatoxins (Aflatoxin Poisoning 2006). Aflatoxins are naturally occurring toxic byproducts from the growth of *Aspergillus flavus* fungi that grow on grains and groundnuts such as corn, wheat, barley, oats, rice, and peanuts. The toxins are a sporadic problem for U.S. farmers.

Mad Cow Disease

Bovine spongiform encephalopathy (BSE) is a disease that strikes cows causing them to develop spongy areas in their brains and suffer neurological damage. It seems likely that the cows get the disease from eating sheep brains contaminated with scrapie, a similar disease found in sheep. (Sheep's brain tissue is rendered into cattle feed.) When BSE was first noticed in the United Kingdom in 1986, some cows were found staggering around in circles, hence the name mad cow disease. By 2006, more than 184,000 cows in 35,000 different herds had been diagnosed with the disease and more than 4 million had been destroyed in an attempt to wipe out the disease (U.S. Department of Health and Human Services 2006). In addition to the toll on cattle, humans began developing a related disease, Creutzfeldt-Jakob disease. Scientists determined that people who had consumed brain or spinal tissue from cows were getting the disease (Easton 2005). Today, both internationally and in the United States, there are safeguards in place to prevent BSE from infecting herds and to keep prions (protein molecules thought to lie at the heart of the disease) from entering the food supply.

Food Additives and Contaminants

Before the U.S. Food and Drug Administration (FDA) approves a new food additive or ingredient, its safety must be demonstrated. Animal feeding studies are performed to determine safety. Large doses are fed to a small number of rats to see whether they develop cancer or other diseases. Olestra and aspartame (marketed as Equal or NutraSweet) have caused the most debate in recent years.

Olestra

Olestra, a fat substitute, was first synthesized at Procter & Gamble in 1968. Chemically, olestra is a table sugar (sucrose) molecule to which as many as eight fatty acid residues are attached. The molecule is so large and fatty that it cannot be broken down by the intestinal enzymes and absorbed by the body. Since it cannot be absorbed by the body, it is used as an indigestible fat substitute in the manufacture of low-calorie foods. Although in the early 1990s researchers discovered that eating even small amounts, such as the quantity in one ounce of potato chips, could cause digestive problems (diarrhea, abdominal cramping, gas, and fecal incontinence), the FDA approved olestra in 1996 for savory snacks such as chips, crackers, and tortilla chips. Because of the adverse effects, however, products had to carry a warning label. Consumer complaints nevertheless began to roll into the FDA; the agency had received almost 20,000 complaints about olestra by 2002, more than all other consumer complaints about other food additives combined (Center for Science in the Public Interest 2006). In 2003 Procter & Gamble lobbied the FDA to remove the warning label for foods containing olestra. The FDA granted the request despite lobbying by consumer groups that wanted the labels to stay.

Aspartame/NutraSweet

Aspartame, sold under the brand NutraSweet, was discovered accidentally by a scientist at Searle in 1965 (Bilger 2006). Today, it is a widely used sweetener that is part of more than 6,000 processed foods including sodas, desserts, candy, and yogurt. There have been some concerns about the safety of aspartame, however. Some people have reported dizziness, hallucinations, and headaches after drinking diet sodas made from aspartame. An independent study confirmed that aspartame can cause headaches in some individuals. Ongoing research suggests that aspartame is probably safe, especially in moderate quantities, like one packet of Equal or one diet soda per day, but individuals who experience headaches or those with the rare disease phenylketonuria (PKU) should avoid it.

Mercury in Fish

Mercury, a toxic metal, makes its way into our oceans from the atmosphere. Mercury is emitted by some natural processes, but it mostly enters the atmosphere from mining and smelting of mineral ores, combustion of fossil fuels, incineration of wastes, and from the use of mercury itself. Mercury is extremely hazardous and causes both neurological and heart problems. The FDA set guidelines for permissible levels of mercury in 1969 (Hawthorne and Roe 2005).

Mercury is a chemical which bioaccumulates, so older fish and fish that live higher on the food chain have higher concentrations of mercury in their systems. In 2004 the EPA and FDA issued a joint warning statement about fish. Children, pregnant women, and women of childbearing age are advised to avoid shark, swordfish, king mackerel, and tilefish because of high levels of mercury and to eat no more than 12 ounces of fish per week total. Further, the agencies recommend that this group of consumers eat only low-mercury fish such as shrimp, canned light tuna, pollock, and catfish. Albacore tuna is higher in mercury and should be avoided by this group.

Many states have issued their own safety warnings to further protect their citizens. Washington State reviewed the FDA's data and concluded that women of childbearing age and children younger than six should not eat fresh or frozen tuna at all, and should limit their canned tuna consumption based on body weight. California requires supermarkets to post warnings in their stores, and Wisconsin and Minnesota recommend at-risk groups limit consumption of halibut, tuna steak, and canned albacore to two meals per month (Hawthorne and Roe 2005).

Salmon

Salmon is the third most popular fish food in the United States behind canned tuna and shrimp. Ninety percent of the salmon consumed is farm raised (Burros 2005b). In 2003, the Environmental Working Group tested farm-raised salmon for PCBs, an industrial pollutant and known carcinogen. These tests revealed that whereas PCB levels in wild salmon averaged 5 parts per billion (ppb), farmed salmon levels averaged 27 ppb. EPA

guidelines recommend eating fish with PCB levels that are no higher than 4 to 6 ppb, based on consuming two fish meals per week (Burros 2003a). In follow-up studies, including a large study funded by the Pew Charitable Trust's Environment Program, scientists found large differences in contaminant levels between farmed and wild salmon. The Pew study sampled about 700 salmon from around the world and analyzed them for more than fifty contaminants, including PCBs and two other persistent pesticides, dieldrin and toxaphene. All three of these contaminants have been associated with increased liver and other cancer risk. Using EPA guidelines, the scientists determined how much salmon could be consumed before cancer risks increased to at least 1 in 100,000. For the most contaminated fish, from farms in Scotland and the Faroe Islands, that amounted to 55 grams of uncooked salmon per month, about a quarter of a serving. The cleanest fish are raised in Chile and the state of Washington. One serving can be consumed per month without increasing cancer risk.

Pesticides

There are more than 865 active ingredients registered as pesticides in the United States. These are formulated into thousands of pesticide products. The EPA estimates there are 350 different pesticides that are used on the foods we eat and to protect our homes and pets (U.S. Environmental Protection Agency 2006). Pesticides can be naturally occurring substances such as nicotine, pyrethrum (found in chrysanthemums,) hellebore, rotenone, and camphor, or synthetically produced substances such as inorganic chemicals, metals, metallic salts, organophosphates, carbamates, and halogenated hydrocarbons.

Before a company can market a pesticide in the United States, it must demonstrate to the FDA that it is safe. The FDA determines what concentration levels of a pesticide or its breakdown products are safe. The tolerance levels, the amount allowed to be present on food at harvest, were adjusted by the 1996 Food Quality Protection Act to be based on what levels are safe for children. Some researchers, however, have criticized the methodology used by the EPA and the FDA to determine pesticide safety because it is limited to testing for cancer, reproductive outcomes, mutations, and neurotoxicity. Further, the EPA does not consult the scientific peer-reviewed literature of studies done on pesticides, but relies on the manufacturer's gross feeding studies instead. For example, one meta-study analyzed the results of 63 separate studies that showed that certain pesticides affect the thyroid. (The thyroid controls brain development, intelligence, and behavior.) Yet the EPA has not acted to ban any pesticides due to thyroid effects (Colborn 2006).

Antibiotics

In 1949 Dr. Thomas Jukes, then director of Nutrition and Physiology Research at Lederle Pharmaceutical Company, discovered that animals fed small doses of antibiotics

gained weight faster. In the early 1950s farmers began to incorporate antibiotics into livestock feed to both promote growth, and thus cut production costs, and also to treat subclinical diseases—diseases that do not cause obvious symptoms but nevertheless are taxing to the animal. Use of antibiotics remained strong, and according to a 2001 report, approximately 70 percent of the 24.5 million pounds of antibiotics used in the United States are administered to livestock for nontherapeutic purposes (Union of Concerned Scientists 2001). Scientists began to realize that the use of antibiotics in this way was not without consequences, however. In 1969 the Swann committee in England recommended that antibiotics only be used to treat animals when prescribed by a veterinarian. Further, the report stated that penicillin and tetracycline should not be used at subtherapeutic doses for growth promotion. In the early 1970s, most Western European countries banned the two drugs for livestock use, but the United States did not. Since the Swann report, many other research bodies have made similar conclusions about antibiotic use in livestock including the National Research Council Committee on Drug Use in Food Animals, which identified uses of antibiotics in food animals that could enhance development of antimicrobial resistance and its transfer to pathogens that cause human disease (Swartz 2002).

The European Union decided to phase out antimicrobials in food for growth promotion. The final phase went into effect in 2006, and now drugs are no longer allowed. In Denmark, where use of antibiotics in healthy animals was banned years earlier, farmers were able to reduce their use of antibiotics by over 50 percent (some antibiotics are still needed to treat sick animals), and the costs of additional feed were minimal (Wegener 2002). The National Academy of Sciences estimated that eliminating antibiotics in healthy animals would cost consumers from $5 to $10 annually in higher food costs (Keep Antibiotics Working 2006).

In the United States, many groups like the American Medical Association, the American Pediatrics Association, and the American Public Health Association, as well as more than 350 consumer, environmental, and sustainable agriculture groups, do not think the FDA has gone far enough in regulating antibiotics. Two consortium groups, Keep Antibiotics Working and the Alliance for the Prudent Use of Antibiotics, put together a Senate bill in 2007 to ban the use of seven classes of antibiotics for growth promotion that are used to treat humans: penicillins, tetracyclines, macrolides, lincosamides, streptogramins, aminoglycosides, and sulfonamides. It would also restrict any use of a drug that subsequently became important in human medicine. Sick animals, however, could still be treated with the drugs when prescribed by a veterinarian.

Today, four of the nation's top chicken producers, representing 38 percent of the total chicken market, have stopped using antibiotics for growth promotion. Tyson Foods, Gold Kist, Perdue Farms, and Foster Farms also restrict antibiotic use for routine disease prevention. McDonald's Corporation and other large-scale purchasers, such as Bon Appetit Management Company, the fourth-largest food service company in the United

States (the company services colleges and universities as well as corporate food service operations), were part of the impetus to reduce antibiotic use (Weise 2006).

Growth Hormones in Beef Cattle

Since the 1950s, growth hormones have been used to increase meat production. Three naturally occurring hormones—estradiol, progesterone, and testosterone—and their synthetic equivalents—zeranol, melengestrol acetate, and trenbolone—are injected into calves' ears as time-release pellets. This implant under the skin causes the steers to gain an extra two to three pounds per week and saves up to $40 per steer in production costs, because the steers gain more weight with the same amount of feed. Two-thirds of U.S. cattle are treated with hormones, but the European Union banned the practice in 1988 and bans imported beef unless it is certified hormone-free (Raloff 2002).

There is wide disagreement about whether the practice is safe. Hormone-like chemicals (DDT, PCB, dioxin, etc.) in large enough concentrations or at critical points in fetal development disrupt functioning of the natural hormones in both animal and human bodies. The U.S. government has been studying the endocrine disruptive effects of certain estrogenic (estrogen-producing) pesticides and food contaminants known as xenoestrogens (substances that behave like estrogens), but has only begun to study the effects of hormones in meat and its impact for food safety and the environment. There has been escalating incidence of reproductive cancers in the United States since 1950. However, it is difficult to say whether added hormones in beef are linked to additional cancer cases, as some believe, or whether the causes are from something else entirely, such as eating a diet rich in animal protein. The hormones in meat are trace amounts. Nevertheless, the European Commission Scientific Committee for Veterinary Measures Relating to Public Health concluded that adverse effects from hormones include developmental, neurobiological, genotoxic, and carcinogenic effects. They further concluded that existing studies do not point to any clear tolerance level, and thus banned the hormones outright (European Commission Finds 1999). The U.S. beef industry argues that the natural hormone levels in the aging bulls and dairy cows used for beef in Europe can be many times higher than from steers treated with hormones.

Recombinant Bovine Growth Hormone

Similar controversy surrounds recombinant bovine growth hormone (rBGH), also called recombinant bovine somatotropin (rBST), administered to dairy cattle to help them produce more milk. Developed by the Monsanto Corporation and marketed under the name Posilac, it has generated a lot of debate since it was approved by the FDA in 1993. The United States is the only major industrialized nation to approve rBGH. Health Canada, the food and drug regulatory arm of the Canadian government, rejected rBGH in early 1999 and stirred up more controversy in the process. They rejected the drug after careful review of the same data that was submitted to the U.S. Food and Drug

Administration, finding that it did not meet standards for veterinary health and might pose food safety issues for humans.

The hormone is injected into the pituitary gland of dairy cows every two weeks because it can increase milk production by as much as 15 percent. The mechanism by which rBGH works may, however, create dangerous hormones for people consuming the dairy products from treated cows. As a by-product, rBGH causes cows to produce more insulin growth factor 1 (IGF-1). IGF-1 is present in milk at higher levels in cows that take rBGH. IGF-1 causes cells to divide. Elevated levels have been associated with higher rates of breast, colon, and prostate cancer. Studies show that IGF-1 survives the digestion process, and the added levels in milk may cause additional cancers in humans. As part of the Nurses Health Study conducted by Harvard University, researchers analyzing the study data concluded that "the results raise the possibility that milk consumption could influence cancer risk by a mechanism involving IGF-1" (Burros 2005a).

The U.S. Department of Agriculture (USDA) estimates that approximately 22 percent of the dairy cows in the United States are treated with rBGH, but FDA rules do not permit a dairy to declare its milk rBGH free. Only milk labeled organic is assured to have no rBGH. Most milk is pooled so almost all the U.S. milk supply has at least traces of rBGH.

Genetically Engineered Food

The latest method of improving productivity is genetic engineering: the transfer of DNA from organisms of one species into organisms of a different species. These DNA transfers can be used to make crops pest-resistant, unaffected by herbicides, or with enhanced nutritional qualities. For example, Monsanto inserted a bacterium into potatoes that causes the potato to be starchier. These starchier potatoes absorb less fat during frying, creating lower-fat french fries and potato chips. Monsanto is also currently experimenting with soybeans to change the type of oil found in soybeans to the omega-3 fatty acids found in fish, but without the fish taste, giving consumers the possibility of getting the health benefits of omega-3s without consuming fish. (The American Heart Association recommends consumers eat two servings of fish weekly, yet only 17 percent of the U.S. population eats that much fish) (Melcer 2006).

So far scientific studies have not shown major problems with genetically engineered foods, but there may be long-term, unforeseen consequences when the environment is changed. In many other areas, changes in the ways food is grown and processed have created niches for harmful bacteria and viruses. Genetic engineering has much to offer in increasing the amount of food available to the world's expanding population, but the process should be carefully reviewed and tested to avoid creating new food risks and environmental catastrophes.

Irradiation

Just as science has brought us new food production techniques, it has also brought new food safety strategies, such as irradiation. Irradiation is the process of subjecting food to electron beams or gamma rays to kill bacteria. The radiation damages the bacteria so that it cannot reproduce. By killing the bacteria, spoilage is also delayed. The amount of radiation is not enough to make the food radioactive, only to kill bacteria. Currently irradiation is used to sterilize medical supplies and cosmetics and a limited number of foods.

Irradiation is the only way to kill *E. coli* O157:H7 besides heat. After the four deaths of children from *E. coli* O157:H7 that were traced to Jack in the Box restaurants in 1993, enthusiasm for irradiation grew and the USDA approved irradiation of beef in 1999. Irradiation raises the cost of meat by up to 20 cents per pound (Gersema 2003).

Meat producers have been cautious about introducing irradiated beef because of the added cost and because it can darken meat and change the flavor enough to be noticeable. High-fat foods can develop a rancid smell. Irradiated food must be marked with the Radura symbol or it must say irradiated on the food label. The marketing departments of the grocery and meat trade organizations have found that considerable education of consumers is needed before they will accept irradiated food. The FDA expanded the definition of pasteurization in 2004 to be "any process, treatment, or combination thereof that is applied to food to reduce the most resistant microorganism(s) of public health significance to a level that is not likely to present a public health risk under normal conditions of distribution and storage" (Sugarman 2004). This new definition allows irradiated food to be labeled "pasteurized" as well as food sterilized by a host of new and old technologies such as pulsed electric fields, ohmic heating, high-pressure processing, and regular cooking processes. However, the word irradiation would still have to appear, as in "pasteurized with irradiation." Market demand will have to be seen in order for investment to be made in the large-scale facilities that would be needed to process large quantities of food.

Besides increased cost and potential reduction of food taste, there are several drawbacks to irradiation. When the food is bombarded with radiation, some of the electrons are freed and attach to other atoms forming new compounds, some of which are harmful, like benzene and formaldehyde. There is also significant vitamin loss from irradiation. Vitamins A, B1, B3, B6, B12, C, E, and K and folic acid are affected. In some foods, as little as 10 percent of the vitamins are destroyed, but in others it can be as high as 50 percent. If irradiated foods become a major part of people's diets, overall nutritional quality will suffer. And while irradiation kills most bacteria, it does not affect viruses, and any bacteria that get onto food after treatment suddenly have a food supply without any competitors. This creates the potential for very toxic food (Fox 1998).

Bioterrorism

Since the terrorist attacks of September 11, 2001, all sectors of the United States have considered vulnerability to terrorism, and the food industry is no exception. Food and the agricultural industry do provide a potential avenue for terrorist attacks, although no one knows how likely such an event is to occur. Some researchers think it would be unlikely to occur, but others think there is potential for bioterror depending on the objectives terrorists were trying to achieve.

Agricultural and food-chain assaults do not have the immediacy and impact of human-directed atrocities such as bombings. The impacts are delayed, and may lack a single focus-point for media attention. The hostility and panic surrounding the September 11 attacks were derived in part by the drama of the suicide bombings, whereas agricultural terror and food tampering are slower to get going but can still be quite devastating.

Controlling access, using tamper-resistant or tamper-evident systems such as tape or wax seals, and keeping records so that tracing and recall of animal feeds can occur all enhance food security at the product level. The FDA created industry recordkeeping requirements in 2004 so that in the event of an outbreak officials will be able to track the source of the food (Alonso-Zaldivar 2004).

See also **Genetically Modified Organisms; Industrial Feeding Operations for Animals; Obesity; Persistent Organic Pollutants; Pesticides; Supply Chain Security and Terrorism (vol. 1); Nutrition in Schools (vol. 3)**

Further Reading

"Aflatoxin Poisoning Claims at Least 100 Dogs," Cornell Reports 37, no. 1 (2006):.

Alonso-Zaldivar, Ricardo, "The Nation, Food Supply Is Secure from Bioterrorism, FDA Says; New Rules Require Firms to Keep Records So That Contamination May Be Traced Back to Its Source." *Los Angeles Times* (December 7, 2004): A17.

Bilger, Burkhard, "The Search for Sweet." *New Yorker* (May 22, 2006): 40–46.

Borzelleca, Joseph, "Food-Borne Health Risks: Food Additives, Pesticides, and Microbes." In *Nutrition Policy in Public Health,* ed. Felix Bronner. New York: Springer, 1997.

Burros, Marion, "A Hormone for Cows." *New York Times* (November 9, 2005a): F10.

Burros, Marion, "Stores Say Wild Salmon, but Tests Say Farm Bred." *New York Times* (April 10, 2005b): A1.

Center for Science in the Public Interest, "The Facts about Olestra." 2006. http://www.cspinet.org/olestra

Chalk, Peter, *Hitting America's Soft Underbelly: The Potential Threat of Deliberate Biological Attacks Against the U.S. Agricultural and Food Industry.* Santa Monica, CA: Rand Corporation, 2004.

Colborn, Theo, "A Case for Revisiting the Safety of Pesticides: A Closer Look at Neurodevelopment." *Environmental Health Perspectives* 1 (2006): 10–17.

Easton, Pam, "Man Who Lived Here Has Human Form of Mad Cow: Official Says It's Not a Safety Issue for Texas." *Houston Chronicle* (November 22, 2005): B7.

Edelstein, Sari, *Food and Nutrition at Risk in America: Food Insecurity, Biotechnology, Food Safety, and Bioterrorism.* Sudbury, MA: Jones & Bartlett, 2009.

Entis, Phyllis, *Food Safety: Old Habits and New Perspectives.* Washington, DC: ASM Press, 2007.

European Commission Finds Growth Hormones in Meat Pose Risk, *Journal of Environmental Health* 4 (1999): 34.

FDA Announces Final Decision About Veterinary Medicine, *FDA News* (July 28, 2005). http://www.fda.gov/bbs/topics/news/2005/new01212.html

Fortin, Neal D., *Food Regulation: Law, Science, Policy, and Practice.* New York: Wiley, 2009.

Fox, Nicols, *Spoiled: The Dangerous Truth About a Food Chain Gone Haywire.* New York: Basic Books, 1997.

Gersema, Emily, "School Lunches to Add Irradiated Beef." *Chicago Sun-Times* (May 30, 2003): A8.

Hawthorne, Michael, and Sam Roe, "U.S. Safety Net in Tatters; Seafood Shoppers Are at Risk for Mercury Exposure as Regulators Ignore Their Own Experts, Issue Flawed Warnings, and Set Policies Aiding Industry." *Chicago Tribune* (December 12, 2005): A1.

Jay, James M., Martin J. Loessner, and David A. Golden, *Modern Food Microbiology,* 7th ed. New York: Springer, 2005.

Jongen, Wim, ed., *Improving the Safety of Fresh Fruit and Vegetables.* Boca Raton, FL: CRC Press, 2005.

Keep Antibiotics Working, "Antibiotic Resistance—An Emerging Public Health Crisis." 2006. http://www.keepantibioticsworking.com

Kluger, Jeffrey, "Anatomy of an Outbreak." *Time* (August 3, 1998): 56–62.

Lammerding, Anna M., and Greg M. Paoli, "Quantitative Risk Assessment: An Emerging Tool for Emerging Food-borne Pathogens." *Emerging Infectious Disease* 3 (1997): 483–487.

Melcer, Rachel. "Scientists Work to Fatten Up Soybeans." *St. Louis Post-Dispatch* (April 12, 2006): C1.

Nestle, Marion, *Safe Food: Bacteria, Biotechnology, and Bioterrorism.* Berkeley: University of California Press, 2003.

Parseghian, Pam, "Cook Up Safety Precautions When Serving Raw Fish." *Nation's Restaurant News* 31 (1997): 33.

Pennington, T. Hugh, *When Food Kills: BSE, E. Coli, and Disaster Science.* New York: Oxford University Press, 2003.

Pray, Leslie, et al., *Managing Food Safety Practices from Farm to Table.* Washington, DC: National Academies Press, 2009.

Raloff, Janet, "Hormones: Here's the Beef." *Science News* (January 5, 2002): 10–12.

Rasco, Barbara, and Glyn E. Bledsoe, *Bioterrorism and Food Safety.* Boca Raton, FL: CRC Press, 2005.

Redman, Nina E., *Food Safety: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Schumann, Michael S., et al., *Food Safety Law.* New York: Van Nostrand Reinhold, 1997.

Steinauer, Joan, "Natural Born Killers." *Incentive* 171 (1997): 24–29.

Sugarman, Carol, "Pasteurization Redefined by USDA Committee." *Food Chemical News* 30 (2004): 21–22.

Swartz, Morton, "Human Diseases Caused by Food-borne Pathogens of Animal Origin." *Clinical Infectious Diseases* Suppl. 3 (2002): 111–122.

Union of Concerned Scientists, 'Estimates of Antimicrobial Abuse in Livestock." 2001. http://www.ucsusa.org/food_and_environment/antibiotics_and_food/hogging-it-estimates-of-antimicrobial-abuse-in-livestock.html

U.S. Department of Agriculture, Food Safety and Inspection Service. "Fulfilling the Vision: Updates and Initiatives in Protecting Public Health." 2004. http://www.fsis.usda.gov/About_FSIS/Fulfilling_the_Vision/index.asp

U.S. Environmental Protection Agency, "Pesticides: Topical and Chemical Fact Sheets: Assessing Health Risks from Pesticides." 2006. http://www.epa.gov/opp00001/factsheets/riskassess.htm

U.S. Food and Drug Administration, *Food-borne Pathogenic Microorganisms and Natural Toxins Handbook.* 2005. http://vm.cfsan.fda.gov/~mow/intro.html

Waltner-Toews, David, *Food, Sex and Salmonella: The Risks of Environmental Intimacy.* Toronto: NC Press, 1992.

Wegener, Henirk, "Veterinary Issues Contributing to Antimicrobial Resistance." In *Proceedings of the Tenth International Conference of Drug Regulatory Authorities,* 24–27. Geneva: World Health Organization, 2002.

Weise, Elizabeth, "'Natural' Chickens Take Flight." *USA Today* (January 24, 2006): D5.

FOSSIL FUELS

Hugh Peach

In the understanding of the material world provided by physics, *energy* is defined as the ability to do work. Work in this sense means the displacement of an object ("mass") in the direction of a force applied to the object. In everyday life, we use the word *energy* more generally to indicate vitality, vigor, or power. Here, we focus on another definition of energy: a source of usable power. Our homes, our industries, and our commercial establishments from the supermarket to the stock exchange can work because they are provided with sources of usable power. The same is true for hospitals and medical services, schools, fire and police services, and recreational centers. Without usable energy, TVs, the Internet, computers, radios, automobiles and trucks, construction equipment, and schools would not work. To put it transparently and simply, energy is important because doing anything requires energy.

Alternative Fuels

There are many sources of usable power on our planet, including natural gas, oil, coal, nuclear energy, manure, biomass, solar power, wind energy, tidal energy, and hydropower. These energy sources are classed as renewable or nonrenewable. For renewable energy (for example, wind, biomass, manure, and solar power), it is possible to refresh energy supplies within a time interval that is useful to our species. If well planned and

PEAK OIL

In 1956, Shell geologist Dr. Marion King Hubbert accurately predicted that U.S. domestic oil production would peak in 1970. According to his estimates, global production would peak around the year 2000. His calculations have proved accurate.

Everything from microchips to gasoline to highway building consumes energy. Images from the National Aeronautic and Space Administration (NASA) suggest that modern cities cannot exist without unfathomably high consumption of fossil fuels, such as electricity derived from burning coal. Whether they can survive by drawing on solar energy remains to be seen. Scientists and engineers have convinced government leaders to subsidize home installation of solar heating equipment, which could store energy and run a kitchen blender or microwave at night, for example. In some areas, the government formerly paid up to 70 percent of the cost to make this shift. It is an economic policy decision for sustaining life as we know it today.

Some contend that civilization as we know it is coming to an end because of this shift. They have likened it to the ramifications similar to dehydration of the human body. Our bodies are 70 percent water. The body of a 170-pound person is thus 119 pounds of water. A person need not lose 119 pounds of water weight to be dehydrated: just 10 or 15 pounds of such weight loss might be enough to kill the person.

So it is with oil and large urban centers such as New York City, Chicago, Los Angeles, and Houston, for example. And so it is with virtual communities. The Internet consumes tremendous amounts of energy. As a product, it was developed during an era of ultracheap energy. The hardware of the Internet alone, coupled with its worldwide connections, vast server farms, and billions of interlinked computers, consumes around 10 percent of all the electricity produced in the United States. Most of the electricity used to power the Internet is produced from coal or natural gas. Both are near their global production peaks.

In 1977, the Central Intelligence Agency (CIA) prepared a now-declassified report about Hubbert's peak oil notion. Government officials perceived a decline in oil supplies a threat to national security, and they still do. The 1977 report documented government awareness of the potential for the availability of fossil fuels to decline in the near future and permanently. In 1982, the State Department released a report estimating that petroleum production in the United States would peak between 1990 and 2010 at between 80 and 105 million barrels per day.

The catastrophic BP–Deepwater Horizon oil gush in the Gulf of Mexico beginning in the spring of 2010 and the company's inability to cap the offshore well bring nearer, arguably, the last days of life as we have known it in the United States for more than a century. In the long term, the spill may have an economic impact well beyond any immediate environmental effects.

—Debra Ann Schwartz

carefully managed on an ongoing basis, the stock of energy supplied is continuously renewed and is never exhausted. The fossil fuels are forms of nonrenewable energy. For each, the planet has a current supply stock that we draw down. These nonrenewable supplies of fossil fuels are not replaceable within either individual or collective human time horizons. It is not that the planet cannot renew fossil fuels in geologic time—that is, over millions of years—but for all practical purposes, given human life span and our limited abilities, renewal is far beyond our technical and scientific capabilities.

For almost all of human history, our species used very little energy, almost all of it renewable, usually in the form of wood fires for heating and cooking. If we had continued in that fashion, the human population might easily be in the low millions and would be approximately in a steady state in relation to the environment. As the first animal on this planet to learn how to use fire, we were able to establish successful nomadic tribes, small farm settlements, early cities, and the kinds of kingdoms that were typical of medieval and preindustrial civilizations. The associated rise in human numbers and our spread across the planet was also associated with the early use of coal, for example to make weapons. But it is only with the rise of industrial civilization, and specifically and increasingly in the last 500 years, that we learned how to use concentrated forms of energy in industrial processes and to exploit various nonrenewable forms of energy massively for uses such as central heating, industrial processes, and the generation of electricity.

Industry and Globalization

The rise of our current global civilization was dependent on abundant and inexpensive concentrated energy from fossil fuels. All of this energy ultimately derives from sunlight, but as we learned how to use coal (replacing wood as fuel) and then oil and natural gas, there was little concern for energy conservation or for developing rules for limiting energy use. Up until the middle of the last century, and somewhat beyond, the typical discussion of energy would have linked usable energy with progress, as is the case today. The spirit of the presentation would have been celebratory, however, celebrating the daring risks taken and the hard work of miners and oil and gas field workers in dominating nature to extract resources. In addition, it would have celebrated the competence of the "captains of industry" whose business skills and aggressive actions supplied energy to manufacturing industry, and would have implied that this pattern of resource exploitation could go on forever without taking limits into account. Today that era of celebration belongs to the somewhat quaint past, and we are now much more aware of the cumulative damage to the environment from aggressive exploitation of limited fossil fuel resources. We now know that we face an immediate future of global warming, shortages of usable energy, and rising prices. From a material perspective, the planet is a closed system, and the dwindling stocks of nonrenewable but usable energy are critically important. For each fossil fuel, what is left is all we have.

Impact of Extraction

There is currently no social convention to limit the use of nonrenewable energy to essential production or essential services. Under the rules of the neoliberal market system, resources are provided to those who have the ability to pay for them. This is the kind of human behavior that an unregulated or weakly regulated market system rewards. Because the stocks of fossil fuels took millions of years to create, the ability to extract them is inherently short-run when there is no strong social planning to provide for a human future on other than a very short-range basis. We commit the same error with fossil fuels that we commit with fish stocks—as ocean fish dwindle in numbers, and species after species significantly declines, the main response has been to develop more and more efficient methods and machines to kill and extract the remaining fish. The same is true with fossil fuels. As abundance disappears, and the cost of extraction continues to increase, the primary response has been to find more efficient methods of extraction and to open up previously protected areas for extraction. As a general pattern, Georgesçu-Roegen and others have pointed out that resources are exploited sequentially, in order of concentration, the easy sources first. After the easy sources of fossil fuels are exhausted, moderately difficult sources are exploited. Then more difficult sources are exploited. Each more difficult source requires the input of more energy (input) in order to extract the sought-after energy resource (output).

In the material world, the process of the energy extraction from fossil fuels requires more and more input energy. And as extraction proceeds to more difficult sources, it is also associated with more and more impurities mixed in with the energy resources. These impurities are often toxic to our species (and other species). Examples include the acidic sludge generated from coal mines and the problem of sour gas in oil and gas drilling (sour gas contains hydrogen sulfide and carbon dioxide). As more and more input energy is required per unit of output energy, we also need to do more work with more and more impurities and toxic waste. Remember now that from our species standpoint the planet is a closed system with respect to nonrenewable forms of usable energy. In physics, the change in internal energy of a closed system is equal to the heat added to the system minus the work done by the system. In this case, *more energy has to be added* to develop a unit of energy output, and more and more work has to be done. For example, as coal, gas, and oil become harder to reach, increasing gross amounts of waste materials are generated.

Beyond this, all of our processes for extracting energy from fossil fuels are inefficient in that energy is lost in the process of doing work. In physics, the measure of the amount of energy that is unavailable to do work is called entropy. (Entropy is also sometimes referred to as a measure of the disorder of a system.) Georgesçu-Roegen and others have developed a subfield of economics based on the priority of material reality over conventional economic beliefs. The fundamental insight grounding this subfield of economics

is that the earth is an open system with very small (residual) usable energy input. So, like a closed system, it cannot perform work at a constant rate forever (because stocks of energy sources run down).

So if we look at the extraction of energy from finite stocks (of coal, oil, or natural gas), the extraction process must become more and more difficult per unit of energy extracted, become more and more costly per unit of energy extracted, and generate more and more waste per unit of energy extracted.

This understanding, which follows from physics and the nature of the material reality of the planet, does not fit with the conventional capitalist economic theory that currently governs world trade, including the extraction of energy resources. Market economics, sometimes called the "business system," typically advises arranging life so as not to interfere with the operations of markets. This advice comes from a perspective that regularly disregards the transfer of "externalities," costs that must be suffered by others, including pollution, health problems, damage to woodlands, wildlife, waterways, and so on.

Conventional economic thinking employs economic models that assume undiminished resources. That is why it seems reasonable to advise more efficient means of extraction of resources (e.g., with fish and coal) as stocks of resources diminish. Another feature of conventional economic thinking is that it (literally) discounts the future. Depending on the cost of capital, any monetary value more than about 20 years in the future is discounted to equal approximately nothing. These features of conventional economics mean that the tools of economic calculation operate to coach economic agents, including those who own or manage extractive industries, to act for immediate profit as if the future were limited to the very short term.

This is in contrast to a material or engineering viewpoint, the perspective of community-oriented social science, and the humane spirit of the liberal arts. All of these are concerned not simply with the present but with the future of the human community and with the quality of human life and of human civilization in the future as well as today.

Quality of Life and Community

Outside of the limited focus of conventional economics, most disciplines place a high value on the quality of the human community and sustaining it into the distant future. Practical reasoning in everyday life often puts a higher value on the future—most of us would like things to get better and better. One way to understand this difference is to contrast the interest of today's captains of industry with the perspective of a student finishing secondary school or beginning college, just now. For the captains, everything done today has a certain prospect for short-term profit, and the future is radically discounted (progressively, year by year) so that 20 years out, its value is essentially zero.

For the student, the point in time 20 years out has a very high value because the quality of life, the job prospects, the environment (including global warming), the prospects for having a family, and the opportunities for children 20 years out will be of direct

personal relevance. The student might argue that the future is more important than today (and should be taken into account without discounting), as would most families that would like a better future for their children. Today's student has a strong interest in having usable energy resources available and the disasters of global warming avoided or lessened. Conventional market economics does not do this; it takes strong regulation, strong central planning, and an engineer's approach to nonrenewable resources to best use and stretch out resources for the future, rather than a conventional economist's approach.

The growth curve of the planetary economy continues to increase. India and China are undergoing rapid economic growth, and the Western economies continue to follow traditional consumption patterns. Capitalist strategies abound in these economies; companies make money by engineering built-in obsolescence into their products. Not only does this require regularly replacing products with new or upgraded versions; it also leaves openings for replacing obsolete products with entirely new lines of products. The computer industry offers numerous examples of this obsolescence imperative. The demand for products of all kinds is soaring in comparison with past decades or centuries. At the same time the human population has increased dramatically over past centuries. All of this requires more and more energy.

Current industry projections for fossil energy suggest that there may be about 250 more years of coal, 67 years of natural gas, and 40 years of oil. These kinds of industry projections change from year to year and are much more generous than projections made by independent university scientists and conservation groups. Several scientists believe we have passed the time of peak oil. The point here, however, is not the specific numbers (it is easy to find more on the Internet) but that these numbers provide a rough indication of remaining stocks. Also, note that the optimistic industry projections are not for millions or thousands of years into the future. From your own perspective, if you knew coal stocks could last for perhaps another 250 years or oil for another 40 years at the outside, would you want fossil energy carefully rationed for specific uses that cannot be easily met by renewable energy (so that it might last 1,000 or 2,000 years)? This is an alternative to the current system of neoliberal market rules that destroy or weaken the institutions of social planning in many small states. Coal, oil, and natural gas are forced onto world markets (by military force, if market pressures and diplomacy do not suffice) with ever more intense extraction for use by those who can afford it (to use as quickly as they like). Which policy is best for you, your family, your community, your country, and the world?

What makes the number of years of remaining stock estimates tricky is that sometimes new resources are found (though this does not happen much anymore), new technical improvements can sometimes increase extraction, and the more optimistic projections tend to use bad math. That is, sometimes the math and statistics fail to take into account factors such as dwindling supply with more and more difficult access,

increased percentage of impurities mixed into remaining stocks, increased waste streams, and the entropy factor. When we interpret these estimates, we need to keep in mind that it is not simply that we will "run out" of coal and oil but that remaining stocks will become more and more expensive to extract.

Conclusion

Energy is important because doing anything requires energy. Any area of human civilization largely cut off from fossil fuels (oil, natural gas, or coal in current quantities) will fail to sustain human carrying capacity. Jobs will be lost, businesses will have to close down, and home energy supplies for heating, cooling, and cooking will become sporadic as energy costs spiral beyond people's means. As a secondary effect, the same thing happens to food supplies that are gradually made too costly for increasing numbers of people.

We are currently watching income in the lower and middle to upper-middle sections of society decrease or not increase. By contrast, income in the upper 1 and 5 percent of households is growing rapidly. We are witnessing, in other words, a resurgence of a class division similar to that of the Middle Ages, with a relative handful of privileged households at the apex (enjoying access to usable energy and food supplies) and a vast surplus population and marginalized population of different degrees below them. We have a choice in planning for a long and well-balanced future for the human community in our use of fossil fuel stocks or continuing with neoliberal economics and conventional market rules (supported by military force), which will allow elites to live well for a while and leave most of the rest of us as surplus.

As important as they are, conservation and renewable energy are insufficient to countervail this future unless we make significant changes in lifestyle and gently reduce the number of humans to a level close to that sustainable by renewable technologies. This will take more mature thinking than is typical of the business system or of conventional market economics. In particular, we need an economics in which beliefs are subordinated to the realities of the physics of the material world.

See also **Automobile Energy Efficiencies; Biodiesel; Coal; Nuclear Energy; Oil Drilling and the Environment; Wind Energy; Oil Economics and Business (vol. 1); Sustainability (vol. 1)**

Further Reading

Ayers, Robert U., and Edward A. Ayers, *Crossing the Energy Divide: Moving from Fossil Fuel Dependence to a Clean-Energy Future.* Upper Saddle River, NJ: Wharton School, 2010.

Beard, T. Randolph, and Gabriel A. Lozada, *Economics, Entropy and the Environment; The Extraordinary Economics of Nicholas Georgesçu-Roegen.* Cheltenham, UK: Edward Elgar, 1999.

Brune, Michael, *Coming Clean: Breaking America's Addiction to Oil and Coal.* San Francisco: Sierra Club Books, 2008.

Coming Global Oil Crisis, "Hubbert Peak of Oil Production." 2009. http://www.hubbertpeak.com

Jensen, Derrick, and Stephanie McMillan, *As the World Burns; 50 Simple Things You Can Do to Stay in Denial, a Graphic Novel.* New York: Seven Stories Press, 2007.

McQuaig, Linda, *It's the Crude, Dude: War, Big Oil, and the Fight for the Planet,* rev. ed. Toronto: Anchor Canada, 2005.

Odum, Howard T., and Elisabeth C. Odum, *A Prosperous Way Down: Principles and Policies.* Boulder: University Press of Colorado, 2001.

Savinar, Matt, *Life After the Oil Crash.* http://www.lifeaftertheoil crash.com

G

GENETIC ENGINEERING

Edward White

Genetic engineering has plunged the world into a stunning technological revolution, one that brings great promise, spurs grave fears, and has unquestionably changed humanity's relationship with the very blueprint of life and physical existence. The problem with being in the midst of a revolution is that one can have little idea where one will end up when the revolution is complete.

So far, genetic engineering and gene-based knowledge have lifted biological science from a relatively crude state of inexactitude, have allowed humans to crack the genetic code, and have given researchers the tools to alter human, animal, and plant life to serve human goals.

Already the products of genetic engineering and genetic science are common throughout the developed world: gene therapies to treat human disease, genetically modified foods for people and animals, and pharmaceuticals for humans produced through genetically engineered bacteria.

The wave of potential products is stunning: organs from pigs transplanted into sick humans, drugs for humans produced in cow's milk, plastics produced by plants rather than with fossil fuels, and gene therapies that could extend human life.

Genes and Genomics

What exactly is genetic engineering? In essence, it involves the manipulation of genes using recombinant DNA techniques to modify what the gene does, either by itself or

in combination with other genes. *Recombinant* means combining genes from different sources in a different manner than occurs naturally. Genes are the units formed by combinations of the nucleotides G (guanine), A (adenine), T (thymine), and C (cytosine), which lie in two equally long and twisting strings (the famous "double helix") that are attached to each other throughout their length. G, A, T, and C nucleotides combine in pairs across the space between the two strings.

About three billion pairs form the human genome—the string of genes that make up each individual human's genetic structure. The study of genomes—known as *genomics*—aims to discover how genome-scale technologies might be applied to living organisms, including human beings. Genomics currently enjoys strong support, both financial and institutional, within the scientific and medical communities and within the pharmaceutical industry.

Other biological life forms have different numbers of genes than the human genome. A gene is a stretch of A-T and C-G pairs that, by their complex arrangement, lay out the instructions for a cell to produce a particular protein. Proteins are the basic agents, formed from amino acids, that determine the chemical reactions in the cell. This long and complex genome is also incredibly small. It is contained in every cell in the body as a microscopic molecule. Although all of the genetic code is included in each body cell, each cell performs only a relatively tiny number of highly specialized functions, with only a comparatively few genes being activated in the functioning of a cell's production and use of proteins. Each cell may produce thousands of proteins, each the product of a different gene; but most of the genome's genes will never be employed by each cell. The genome can perhaps be understood as an instruction manual both for the construction of a life form and for its functioning once it has formed. It is like a computer operating system that also contains the information that a tiny piece of silicon could use to build itself into the computer that will use the operating system.

Changing Genetic Function

Because genes determine what cells do within an organism, scientists realized that by altering, adding, or deleting genes they could change the functioning of the larger life form of which the genes are a part. To do so they need to use genetic engineering to alter and switch genes.

What scientists have been able to do with genetic engineering is (1) make it possible to "see" the genes in the DNA sequence, (2) understand the functions of some of those genes, and (3) cut into the DNA and remove or add genes and then reform it all as a single strand. Often the genes that are added come not from members of the same animal, plant, or bacterial species but from entirely different species.

Procedure

How is genetic engineering done? Again, there are very simple and exceedingly complex answers to this question, depending on how much detail one wants about the underlying processes.

The recombinant DNA revolution began in the 1970s, led by three scientists from the United States: Paul Berg, Stan Cohen, and Herb Boyer. They knew that certain bacteria seemed to be able to take up pieces of DNA and add them to their own genome. They discovered that even recombinant DNA created in the lab could be taken up by these bacteria. By 1976 scientists had successfully created a bacterium containing a human protein in and later managed to produce human insulin in bacteria. Bacterially produced human insulin, produced using this bacterium-based process, is now the main form of insulin supplied to people suffering from diabetes.

Genetic engineers have discovered ways to isolate a gene in one species that they think could have a useful function in another, insert that gene (with others that make it "stick" to the rest of the DNA strand) into a cell's nucleus, and then make that cell develop into an entire life form. It is comparatively easy for scientists to introduce genes and comparatively much harder to get the altered cell to develop into a larger life form.

Radical Implications

Many fear the implications of this revolution. Not only is it a radically new science with little proof that its many innovations will be entirely safe but, in addition, no one is in control of it. Like all revolutions of knowledge, once the scientific breakthroughs have been achieved and the information has been widely disseminated, human individuals and societies, with all their virtues and vices, will be free to use the knowledge as they see fit. At present nobody is responsible for saying yea or nay to genetic engineering developments on behalf of the human species. History does not suggest that all human beings are either entirely altruistic or completely competent in embracing the possibilities of radical new technology.

Pros and Cons

With all the promise and potential, a wave of beneficial products appears set to wash over the human species and make human existence better.

Since the beginning of the genetic engineering revolution, however, some people have been profoundly concerned about the implications and possible dangers of the scientific innovations now occurring in rapid succession.

From its beginning, genetic engineering has prompted concerns from researchers, ethicists, and the public. For example, Paul Berg, the genetic engineering pioneer, called for a moratorium on molecular genetic research almost simultaneously with his team's early discoveries, so that people could consider the consequences of these new methods. Since then, scientists have debated the positives and negatives of their new scientific abilities while also overwhelmingly embracing and employing those abilities. Many—but not all—of the scientific worries have been alleviated as scientists have improved their knowledge, but the worries of the public and nonscientists conversely have greatly increased.

Some of the concerns of critics about genetic engineering are practical. Is it safe to move genes around from one individual to another? Is it safe to move genes from one species to another? For example, if organs from a pig were genetically altered so that humans could accept them as transplants, would that make that person susceptible to a pig disease? And if that pig disease struck a human containing a pig organ, could that disease then adapt itself to humans in general and thereby become a dangerous new human disease? The actual nuts and bolts of genetic engineering often include many more strands of genetic material than just the attractive characteristic that scientists want to transfer. Different genetic materials are used to combine and reveal changes in genetic structure. What if these elements bring unexpected harm, or if somehow the combination of disparate elements does something somehow dangerous?

Some fear that ill-intended people, such as terrorists or nasty governments, might use genetic engineering to create diseases or other biological agents to kill or injure humans, plants, or animals. For instance, during the years of apartheid, a South African germ warfare program attempted to find diseases that could kill only black people and attempted to develop a vaccine to sterilize black people. During the Cold War, both NATO and Warsaw Pact nations experimented with biological warfare. The program of the Soviet Union was large and experimented with many diseases, including anthrax and smallpox. In one frightening case, an explosion at a Soviet germ warfare factory caused an outbreak of anthrax in one of its cities, causing many deaths. If scientists become able to go beyond merely experimenting with existing diseases to creating new ones or radically transformed ones, the threat to human safety could be grave. Australian scientists alarmed many people when they developed a form of a disease that was deadly to mice. If that disease, which is part of a family that can infect humans, somehow became infectious to humans, science would have created an accidental plague. What if scientists deliberately decided to create new diseases?

This fear about safety is not limited just to humans intentionally creating dangerous biological agents. What if scientists accidentally, while conducting otherwise laudable work, create something that has unexpectedly dangerous characteristics? What if humans simply are not able to perceive all the physical risks contained in the scientific innovations they are creating?

This concern has already gone from the theoretical to the real in genetic engineering. For instance, British scientists got in trouble while trying to develop a vaccine for hepatitis C after they spliced in elements of the dengue fever genome. Regulators disciplined the scientists for breaching various safe-science regulations after some became concerned that a frightening hybrid virus could arise as a result. The scientists had not intended any harm, and no problem appears to have arisen, but potential harm could have occurred, and any victims might have cared little about whether the damage to them was caused deliberately or by accident. Once a disease is out of the laboratory and floating in an ocean of humanity, it might be too late to undo the damage.

Responding to this concern, some argue for an approach they refer to as the "precautionary principle." This suggests that innovations and developments not be allowed out of the laboratory—or even created in the laboratory—until their safety or potential safety has been exhaustively demonstrated. Critics of genetic engineering often claim that the absence of long-term tests of genetic engineering innovations means that they should not be introduced until these sorts of tests can be conducted. This sounds like a good and prudent approach, but if actually applied across the spectrum, this approach would have prevented many innovations for which many humans now are profoundly grateful. If organ transplantation had been delayed for decades while exhaustive studies were conducted, how many thousands of Americans would not be alive today because they could not receive transplants? If scientists were prevented from producing insulin in a lab and forced to obtain it from human sources, how many diabetics would be short of lifesaving insulin? If scientists develop ways to produce internal organs in pigs that could save the many thousands of people who die each year because they cannot obtain human transplant organs in time, how long will the public wish to prevent that development from being embraced? The precautionary principle may appear to be an obvious and handy way to avoid the dangers of innovations, but it is difficult to balance that caution against the prevention of all the good that those innovations can bring.

Some of the concerns have been political and economic. Regardless of the possible positive uses of genetic engineering innovations, do they confer wealth and power on those who invent, own, or control them?

Many genetic engineering innovations are immediately patented by their inventors, allowing them to control the use of their inventions and charge fees for access to them. If an innovation makes a biological product such as a crop more competitive than non-engineered varieties, will farmers be essentially forced to use the patented variety in order to stay competitive themselves? Will the control of life forms changed by genetic engineering fall almost entirely into the hands of wealthy countries and big companies, leaving poor countries and individuals dependent on them? If a researcher makes an innovation in an area that other researchers are working in and then gets legal control of the innovation, can he prevent other researchers from developing the science further? The latter is a question American university researchers have often debated.

Positive Progress or Dangerous Development

Genetic engineering can be seen as radically new, but to some it is merely a continuation of humanity's age-old path of scientific development. Some see it as an unprecedented break with age-old methods of human science and industry and fundamentally different; others see it as the next logical step in development and therefore not fundamentally radical at all.

One's general outlook on scientific development can also color one's view as to whether these developments seem generally positive or negative. Do you see scientific

progress as opening new opportunities and possibilities for humans to improve their situation and the world, or do you see it as opening doors to dangers against which we need to be protected? To some degree these different perspectives determine whether one is alarmed and cautious about this new science or excited and enthusiastic about it.

As humanity lives through this stunning revolution, the number of details known will increase. Few believe we are anywhere near the peak of the wave of innovations and developments that will occur because of the ability of scientists and industries to use genetic engineering to alter life. Indeed, most scientists consider this to be a scientific revolution that is only just beginning.

Selective Breeding

Humanity began its social evolution when it began manipulating its environment. Hunter-gatherer peoples often burned bush to encourage new plant growth that would attract prey animals. At a certain point in most cultures, early hunters learned how to catch and domesticate wild animals so that they would not have to chase them or lure them by crude methods such as this. The ex-hunters would select the best of their captured and minimally domesticated animals and breed them together and eliminate the ones that were not as good. Eventually the animals became very different from those that had not been domesticated.

The earliest crop farmers found plants that provided nutritious seeds and, by saving and planting some of those seeds, created the first intentional crops. By selecting the seeds from the plants that produced the biggest, greatest number, or nutritionally most valuable seeds, those early farmers began manipulating those plant species to produce seeds quite different from the uncontrolled population.

The plants and animals created by selective breeding were the result of a very primitive form of genetic engineering by people who did not know exactly what they were doing (or even what a gene was): the attractive animals and plants with heritable characteristics were genetically different from the ones that did not have those characteristics, so when they were bred together, the genes responsible for the attractive qualities were concentrated and encouraged to become dominant, and the animals and plants without the genes responsible for the attractive characteristics were removed from the breeding population and their unattractive genes discouraged.

Over centuries and thousands of years, this practice has produced some stunningly different species from their natural forebears, as deliberate selection and fortuitous genetic mutations have been embraced in the pursuit of human goals. For example, it is hard to imagine today's domestic cattle at one time being a smart, tough, and self-reliant wild animal species capable of outrunning wolves and saber-tooth tigers, but before early humans captured and transformed them, that is exactly what they were. Consider the differences between cattle and North American elk and bison. Even "domesticated" elk and bison on farms need to be kept behind tall wire mesh fences because they will

leap over the petty barbed wire fences that easily restrict docile cattle. But in 100 years, after "difficult" animals are cut out of the farmed bison and elk herds, will these animals still need to be specially fenced?

Wheat, one of the world's most common crops, was just a form of grass until humans began selective breeding. The fat-seeded crop of today looks little like the thin-seeded plants of 7,000 years ago. Under the microscope, it looks different too: although the overall wheat genome is quite similar to that of its wild grass relatives, the selective breeding over thousands of years has concentrated genetic mutations that have made today's wheat a plant that produces hundreds of times more nutritional value than the wild varieties. Did the farmers know that they were manipulating genes? Certainly not. Is that what they in fact did? Of course. Although they did not understand *how* they were manipulating the grass genome, they certainly understood *that* they were manipulating the nature of the grass called wheat.

In the past few centuries, selective and complex forms of breeding have become much more complex and more exact sciences. (Look at the stunning yield-increasing results of the commercialization of hybrid corn varieties beginning in the 1930s.) But it was still a scattershot approach, with success in the field occurring because of gigantic numbers of failed attempts in the laboratory and greenhouse. Scientists were able to create the grounds for genetic good fortune to occur, but they could not dictate it. They relied on genetic mutations happening naturally and randomly and then embraced the chance results.

This began to change after the existence and nature of deoxyribonucleic acid (DNA) was revealed by scientists in the 1950s. Once scientists realized that almost all life forms were formed and operated by orders arising from DNA, the implications began to come clear: if elements of DNA could be manipulated, changed, or switched, the form and functions of life forms could be changed for a specific purpose.

Milk, Crops, and Cloning

It took decades to perfect the technology and understanding that allows genes and their functions to be identified, altered, and switched. But by the 1990s, products were rolling out of the laboratory and into the marketplaces and homes of the public. In animal agriculture the first big product was bovine somatotropin (BST), a substance that occurs naturally in cattle but is now produced in factories. When it is given to milk-producing cows, the cows produce more milk.

Farmers got their first big taste of genetic engineering in produce when various "Roundup Ready" crops were made available in the mid-1990s. Dolly, a cloned sheep, was revealed to the world in 1997. Generally, cloning is not considered genetic engineering because a clone by definition contains the entire unaltered gene structure of an already existing or formerly existing animal or cell. The genes can be taken from a fully developed animal or plant or from immature forms of life. Genetic engineering

is generally considered to require a change in or alteration of a genome rather than simply switching the entire genetic code of one individual with another. Although not fitting the classic definition of "genetic engineering," cloning is a form of genetic biotechnology, which is a broader category.

Disney and Shelley

Humanity has had grave concerns about new science for centuries. These concerns can be seen in folk tales, in religious concepts, and in literature. Perhaps the most famous example in literature is the tale of Dr. Victor Frankenstein and the creature he creates. Frankenstein, driven by a compulsion to discover and use the secrets to the creation of life, manages to create a humanoid out of pieces of dead people but then rejects his living creation in horror. Instead of destroying it, however, he flees from its presence and it wanders out into the world. The creature comes to haunt and eventually destroy Frankenstein and those close to him. The story of Frankenstein and his creature can be seen as an example of science irresponsibly employed, leading to devastating consequences.

Another tale is that of the sorcerer's apprentice. In order to make his life easier, the apprentice of a great magician who has temporarily gone away uses magic improperly to create a servant from a broomstick. Unfortunately for the apprentice, he does not have the skill to control the servant once it has been created, and a disaster almost occurs as a result of his rash employment of powerful magic.

Both of these tales—popular for centuries—reveal the long-held uneasiness of those hesitant to embrace new technology.

Finding Balance

On a practical and utilitarian level, many people's concerns focus on a balance of the positives versus the negatives of innovations. They are really a compilation of pluses and minuses, with the complication of the known unknowns and unknown unknowns not allowing anyone to know completely what all the eventual pluses and minuses will be.

Balancing complex matters is not an easy task. Innovations in life forms created by genetic engineering can have a combination of positive and negative outcomes depending on what actually occurs but also depending on who is assessing the results. For instance, if genetically altered salmon grow faster and provide cheaper and more abundant supplies of the fish than unaltered salmon, is that worth the risk that the faster-growing genetically engineered salmon will overwhelm and replace the unaltered fish?

A helpful and amusing attempt at balancing the pluses and minuses of genetic engineering's achievements was detailed in John C. Avise's 2004 book *The Hope, Hype and Reality of Genetic Engineering*. In it he introduces the "Boonmeter," which he attempts to use to place genetic innovations along a scale. On the negative extreme is the "boondoggle," which is an innovation that is either bad or has not worked. Closer to the neutral center but still on the negative side is the "hyperbole" label, which marks

innovations that have inspired much talk and potential but little success so far. On the slightly positive side is the "hope" label, which tags innovations that truly seem to have positive future value. On the extreme positive pole is the "boon" label, for innovations that have had apparently great positive effects without many or any negative effects.

Throughout his book Avise rates the genetic engineering claims and innovations achieved by the time of his book's publication date using this meter, admitting that the judgments are his own, that science is evolving and the ratings will change with time, and that it is a crude way of balancing the positives and negatives. It is, however, a humorous and illuminating simplification of the complex process in which many people in society engage when grappling with the issues raised by genetic engineering.

Ethical concerns are very difficult to place along something as simplistic as the boon-meter. How does one judge the ethics of a notion such as the creation of headless human clones that could be used to harvest organs for transplantation into sick humans? Is that headless clone a human being? Does it have rights? Would doctors need the permission of a headless clone to harvest its organs to give to other people? How would a headless

SYNTHETIC BIOLOGY

Synthetic biology is do-it-yourself genetic engineering, the kind a building contractor taking a class at City College of San Francisco, a two-year community college, dreamed up for a science competition. Dirk VandePol thought it would be cool to re-engineer cells from electric eels into an alternative source of energy. Instead, his team agreed to try to build an electric battery powered by bacteria for the International Genetically Engineered Machine Competition. The experiment succeeded.

This success required building the bacterium itself; that is, redesigning a living organism, by a process called synthetic biology. Some view the innovation as the 21st century's steam engine.

It is the science of writing a brand new genetic code—assembling specific genes or portions of genes into a single set of genetic instructions. The genes may be made from scratch or drawn from various organisms found in nature. Genetic engineering is developing in this direction as researchers seek to move away from now-traditional cut-and-paste genome technology.

Scientists discovered that implanting the new code into an organism is likely to make its cells do and produce things that nothing in nature has ever done or produced before. Venture capitalists are cutting checks for this kind of science. New commercial applications blossoming from synthetic biology include a sugar-eating bacterium with cells secreting a chemical compound almost identical to diesel fuel. The company responsible is marketing the product as "renewable petroleum." Another company has tricked yeast into producing an antimalarial drug.

Source: Jon Mooallem, "Do-It-Yourself Genetic Engineering." *New York Times* (February 10, 2010).

clone consent to anything? This sounds like a ridiculous example, but at least one scientist has raised the possibility of creating headless human clones, so it may not be as far-off an issue as some may think. Simpler debates about stem cells from embryos are already getting a lot of attention.

Conclusion

As genetically engineered innovations create more and more crossovers with science, industry, and human life, the debates are likely to intensify in passion and increase in complexity. Some biological ethical issues do appear to deflate over time, however. For example, in the 1980s and 1990s, human reproductive technology was an area of great debate and controversy as new methods were discovered, developed, and perfected. Notions such as artificial insemination and a wide array of fertility treatments—and even surrogate motherhood—were violently divisive less than a generation ago but have found broad acceptance now across much of the world. Although there is still discussion and debate about these topics, much of the passion has evaporated, and many young people of today would not understand the horror with which the first "test tube baby" was greeted by some Americans.

Some of these concerns, such as that regarding in vitro fertilization, appear to have evaporated as people have accepted novel ideas that are not fundamentally offensive to them. Other debates, such as those surrounding sperm and egg banks, remain unresolved, but the heat has gone out of them. Other concerns, such as surrogate motherhood, have been alleviated by regulations or legislation to control or ban certain practices. Whether this will happen in the realm of genetic engineering remains to be seen. Sometimes scientific innovations create a continuing and escalating series of concerns and crises. Other crises and concerns tend to moderate and mellow over time.

Even if genetic science is used only to survey life forms to understand them better—without altering the genetic code at all—does that allow humans to make decisions about life that it is not right for humans to make? Some are concerned about prenatal tests of a fetus's genes that can reveal various likely or possible future diseases or possible physical and mental problems. If the knowledge is used to prevent the birth of individuals with, for example, autism, has society walked into a region of great ethical significance without giving the ethical debate time to reach a conclusion or resolution? A set of ethical issues entirely different from those already debated at length in the abortion debate is raised by purposeful judging of fetuses on the grounds of their genes.

A simple, non–genetic engineering example of this type of issue can be seen in India. Legislators have been concerned about and tried to prevent the use of ultrasound on fetuses to reveal whether they are male or female. This is because some families will abort a female fetus because women have less cultural and economic value in some segments of Indian society. Similar concerns have been expressed in North America. Humans have been concerned about eugenics for a century, with profound differences of opinion over

the rights and wrongs of purposely using some measure of "soundness" to decide when to allow a birth and when to abort it. These issues are yet to be resolved, and genetic engineering is likely to keep them alive indefinitely.

One area of concern has less to do with the utilitarian, practical aspects of genetic engineering than with spiritual and religious questions. The problem is summed up in the phrase *playing God:* by altering the basic building blocks of life—genes—and moving genes from one species to another in a way that would likely never happen in nature, are humans taking on a role that humans have no right to take?

Even if some genetic engineering innovations turn out to have no concrete and measurable negative consequences, some people of a religious frame of mind might consider the very act of altering DNA to produce a human good to be immoral, obscene, or blasphemous. These concerns are often raised in a religious context, with discussants referring to religious scriptures as the basis for moral discussion. For example, the biblical book of Genesis has a story of God creating humans in God's image and God creating the other animals and the plants for humanity's use. Does this imply that only God can be the creator and that humans should leave creation in God's hands and not attempt to alter life forms? If so, what about the selective breeding that humans have carried out for thousands of years?

On the other hand, if humans are created in God's image and God is a creator of life, then is not one of the fundamental essences of humanity its ability to make or modify life? Because God rested after six days of creation, however, perhaps the creation story suggests there is also a time to stop creating.

The advent of the age of genetic engineering has stirred up a hornet's nest of concerns about the new technology. Some of these concerns are practical and utilitarian. Some are ethical and some are religious in nature. Regardless of whether one approves of genetic engineering, it is doubtless here to stay. The knowledge has been so widely disseminated that it no government, group of governments, or international organizations is likely to be able to eliminate it or prevent it from being used by someone somewhere. The genie is out of the bottle, and it is probably impossible to force it back in.

If they wish to find acceptable approaches before changes are thrust upon them rather than being forced to deal with ethical crises after they have arisen, scientists, politicians, and the public at large will have to develop their ethical considerations about genetic engineering as quickly and profoundly as these new discoveries surface and expand.

See also **Cloning; Eugenics; Genetically Modified Organisms; Human Genome Project**

Further Reading

Avise, John C., *The Hope, Hype and Reality of Genetic Engineering.* New York: Oxford University Press, 2004.

Genetic Engineering & Biotechnology News, http://www.genengnews.com

LeVine, Harry, *Genetic Engineering: A Reference Handbook,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2006.

McCabe, Linda L., and Edward R. B. McCabe, *DNA: Promise and Peril.* Berkeley: University of California Press, 2008.

McHughen, Alan, *Pandora's Picnic Basket—The Potential and Hazards of Genetically Modified Foods.* New York: Oxford University Press, 2000.

Mooallem, Jon, "Do-it-Yourself Genetic Engineering." *New York Times Magazine* (February 10, 2010). http://www.nytimes.com/2010/02/14/magazine/14Biology-t.html

Sherwin, Byron, *Golems among Us—How a Jewish Legend Can Help Us Navigate the Biotech Century.* Chicago: Ivan R. Dee, 2004.

Steinberg, Mark L., and Sharon D. Cosloy, *The Facts on File Dictionary of Biotechnology and Genetic Engineering.* New York: Checkmark Books, 2001.

Vogt, Donna U., *Food Biotechnology in the United States: Science, Regulation and Issues.* Washington, DC: Congressional Research Service of the Library of Congress, 2001.

GENETICALLY MODIFIED ORGANISMS

Jason A. Delborne and Abby J. Kinchy

Genetically modified plants, microbes, and animals have been a source of controversy since the development of genetic engineering techniques in the 1970s, intensifying with the growth of the life sciences industry in the 1990s. A wide range of critics, from scientists to religious leaders to antiglobalization activists, have challenged the development of genetically modified organisms (GMOs). Controversies over GMOs have revolved around their environmental impacts, effects on human health, ethical implications, and links to patterns of corporate globalization.

A GMO is a plant, microbe, or animal whose genetic material has been intentionally altered through genetic engineering. Other terms often used in place of "genetically modified" are *transgenic* or *genetically engineered* (GE). Genetic engineering refers to a highly sophisticated set of techniques for directly manipulating an organism's DNA, the genetic information within every cell that allows living things to function, grow, and reproduce. Segments of DNA that are known to produce a certain trait or function are commonly called genes. Genetic engineering techniques enable scientists to move genes from one species to another. This creates genetic combinations that would never have occurred in nature, giving the recipient organism characteristics associated with the newly introduced gene. For example, by moving a gene from a firefly to a tobacco plant, scientists created plants that glow in the dark.

Humans have been intentionally changing the genetic properties of animals and plants for centuries, through standard breeding techniques (selection, cross-breeding, hybridization) and the more recent use of radiation or chemicals to create random

mutations, some of which turn out to be useful. In this broad sense, many of the most useful plants, animals, and microbes are "genetically modified."

Techniques

The techniques used to produce GMOs are novel, however. To produce a GMO, scientists first find and isolate the section of DNA in an organism that includes the gene for the desired trait and cut it out of the DNA molecule. Then they move the gene into the DNA of the organism (in the cell's nucleus) that they wish to modify. Today, the most common ways that this is done include the following: using biological vectors such as plasmids (parts of bacteria) and viruses to carry foreign genes into cells; injecting genetic material containing the new gene into the recipient cell with a fine-tipped glass needle; using chemicals or electric current to create pores or holes in the cell membrane to allow entry of the new genes; and the so-called gene gun, which shoots microscopic metal particles coated with genes into a cell.

After the gene is inserted, the cell is grown into an adult organism. Because none of the techniques can control exactly where or how many copies of the inserted gene are incorporated into the organism's DNA, it takes a great deal of experimentation to ensure that the new gene produces the desired trait without disrupting other cellular processes.

Uses

Genetic engineering has been used to produce a wide variety of GMOs. Following are some examples:

- Animals: Genetically modified (GM) animals, especially mice, are used in medical research, particularly for testing new treatments for human disease. Mosquitoes have been genetically engineered in hopes of slowing the spread of malaria. Farm animals, such as goats and chickens, have been engineered to produce useful substances for making medicines. Salmon DNA has been modified to make the fish grow faster. Pet zebra fish have been modified to have a fluorescent glow.
- Microbes: GM microbes (single-celled organisms) are in use in the production of therapeutic medicines and novel GM vaccines. Research is under way to engineer microbes to clean up toxic pollution. GM microbes are being tested for use in the prevention of plant diseases.
- Plants: Scientists have experimented with a wide variety of GM food plants, but only soybeans, corn, and canola are grown in significant quantities. These and a small number of other crops (e.g., papaya, rice, squash) are engineered to prevent plant disease, resist pests, or enable weed control. Some food crops have been engineered to produce pharmaceutical and industrial compounds, often called

"molecular farming" or "pharming." Other, nonfood plants have also been genetically engineered, such as trees, cotton, grass, and alfalfa.

History

The research and development of GMOs and other forms of biotechnology have occurred in both universities and corporations. The earliest technologies and techniques were developed by professors in university laboratories. In 1973 Stanley Cohen (Stanford University) and Herbert Boyer (University of California, San Francisco) developed recombinant DNA (rDNA) technology, which made genetic engineering possible.

Although the line between "basic" and "applied" research has always been fuzzy, GMO research has all but eliminated such distinctions. The first release of a GMO into the environment resulted directly from a discovery by Stephen Lindow, a plant pathologist at the University of California–Berkeley. His "ice-minus bacteria," a GM microorganism that could be sprayed on strawberry fields to resist frost damage, was tested by Advanced Genetic Sciences (a private company) in 1986 amid great controversy. In many cases, university professors have spun off their own companies to market and develop practical uses for their biotechnology inventions. Herbert Boyer, for example, cofounded Genentech (NYSE ticker symbol: DNA) in 1976, a biotechnology company that produced the first approved rDNA drug, human insulin, in 1982. Such entrepreneurial behavior by academics has become common, if not expected, but has also attracted criticism from those who mourn what some have called the "commercialization of the university."

The early 1990s witnessed a growth of "life science" companies—transnational conglomerations of corporations that produced and sold agricultural chemicals, seeds (GM and conventional), drugs, and other genetic technologies related to medicine. Many of

UNIVERSITY–INDUSTRY PARTNERSHIPS

Biotechnology firms have begun to invest heavily in university research programs. Such university–industry partnerships have been quite controversial. In one example, the Novartis Agricultural Discovery Institute (a private corporation) and the Department of Plant and Microbial Biology at University of California–Berkeley formed a research partnership in 1998. Supporters of the agreement praised the ability of a public university to leverage private assets for the public good during a time of decreasing governmental support of research and celebrated the opportunity for university researchers to access proprietary genetic databases. Meanwhile, critics warned of conflicts of interest, loss of autonomy of a public institution, and research trajectories biased in the direction of profit-making. An independent scholarly evaluation of the agreement by Lawrence Busch and colleagues at Michigan State University found that neither the greatest hopes nor the greatest fears were realized but recommended against holding up such partnerships as models for other universities to mimic.

GMOS SLIPPING THROUGH THE REGULATORY CRACKS?

In the United States, three agencies are primarily responsible for regulating genetically modified organisms (GMOs): the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA), and the U.S. Food and Drug Administration (FDA). The USDA evaluates the safety of growing GM plants—for instance, to see if GM crops will become weedy pests. The EPA deals with GMOs when they involve herbicides or pesticides that may have an impact on the environment and also reviews the risks of GM microorganisms. The FDA is responsible for the safety of animals, foods, and drugs created using genetic engineering. Some believe that the U.S. system of regulation of GMOs is not stringent enough. Food safety advocates often criticize the FDA because most GM foods are exempted from the FDA approval process. In certain cases, the U.S. government provides no regulatory oversight for GMOs. For example, the "GloFish," a GM zebra fish, has not been evaluated by any U.S. government agencies, yet it is now commercially available at pet stores across the United States. The USDA, EPA, and Fish and Wildlife Service all said that the GloFish was outside of their jurisdiction. The FDA considered the GloFish but ruled that it was not subject to regulation because it was not meant to be consumed.

these companies began as pharmaceutical companies or as producers of agricultural chemicals, especially pesticides (e.g., Monsanto, Syngenta). Companies combined and consolidated in the hope of taking advantage of economic and technological efficiencies, and they attempted to integrate research, development, and marketing practices. By the late 1990s, however, many life science companies had begun to spin off their agricultural divisions because of concerns about profit margins and the turbulent market for GM crops and food. Today there are a mixture of large transnational firms and smaller boutique firms, the latter often founded by former or current university researchers.

The biotechnology industry is represented by lobby groups including the Biotechnology Industry Organization (BIO) and CropLife International. There are also a variety of organizations that advocate for continued research and deployment of GMOs, such as the AgBioWorld Foundation and the International Service for the Acquisition of Agri-Biotech Applications (ISAAA).

Opposition and Regulation

Opposition to GMOs has emerged from many different sectors of society and has focused on various aspects and consequences of biotechnologies. The following list captures the breadth and some of the diversity of critique, although there are too many advocacy organizations to list here.

- Consumers (Consumers Union, Organic Consumers Association): Both as individuals and as organized groups, some consumers have opposed GM food by

boycotting products and by participating in campaigns against politicians, biotechnology companies, and food distributors. Reasons include the lack of labeling of GM foods and ingredients (a consumer choice or right-to-know issue), health concerns (allergies, nutritional changes, unknown toxic effects), and distrust of the regulatory approval process (especially in the European Union).

- Organic farmers (Organic Trade Association, California Certified Organic Farmers): Organic agricultural products demand a premium that stems from special restrictions on how they are grown and processed. Under most organic certification programs (e.g., USDA organic), the presence of transgenic material above certain very low thresholds disqualifies the organic label. Organic farmers have therefore sustained economic losses because of transgenic contamination of their crops. Routes of contamination include pollen drift (from neighboring fields), contaminated seeds, and postharvest mixing during transport, storage, or processing. Some conventional farmers have also opposed GM crops (especially rice) because significant agricultural markets in Asia and the European Union (EU) have refused to purchase grains (organic or conventional) contaminated with transgenic DNA.
- Antiglobalization groups (International Forum on Globalization, Global Exchange, Peoples' Global Action): Efforts to counter corporate globalization have frequently targeted transnational biotechnology companies—GM food became a kind of rallying cry at the infamous World Trade Organization protests in Seattle in 1999. Critics oppose the consolidation of seed companies, the loss of regional and national variety in food production and regulation, and the exploitation of human and natural resources for profit.
- Scientists (Union of Concerned Scientists, Ecological Society of America): Scientists critical of GMOs (more commonly ecologists than molecular biologists) tend to emphasize the uncertainties inherent in developing and deploying biotechnologies. They criticize the government's ability to properly regulate GMOs, highlight research that suggests unwanted health or environmental effects, and caution against unchecked university–industry relations.
- Environmental organizations (Greenpeace, Friends of the Earth): Controversy exists over the realized and potential benefits of GM crops. Critics emphasize the negative impacts, dispute the touted benefits, disparage the regulatory process as too lax and too cozy with industry, and point out that yesterday's pesticide companies are today's ag-biotech companies.
- Religious groups (United Church of Canada, Christian Ecology Link, Eco Kosher Network, Directors of the Realm Buddhist Association): Faith-based criticism of GMOs may stem from beliefs against tinkering with life at the genetic level ("playing God"), concerns about inserting genes from "taboo" foods into other foods, or social justice and environmental principles.

- Sustainable agriculture/food/development organizations (ETC Group, Food First/Institute for Food and Development Policy): These nongovernmental organizations (NGOs) bring together ethical, technological, cultural, political, environmental, and economic critiques of GMOs, often serving as clearinghouses of information and coordinating transnational campaigns.
- Indigenous peoples: Because many indigenous groups have remained stewards of eco-regions with exceptional biodiversity, scientists and biotechnology companies have sought their knowledge and their genetic resources ("bioprospecting"). At times, this has led to charges of exploitation and "biopiracy." In some cases, indigenous peoples have been vocal critics of GMOs that are perceived as "contaminating" sacred or traditional foods, as in a recent controversy over GM maize in Mexico.

Advocates and Regulation

Ever since researchers first began to develop GMOs, governments around the world have had to decide whether and how to regulate them. Controversies around GMOs often refer to arguments about the definition, assessment, and management of risk. Promoters of GMOs tend to favor science-based risk assessments ("sound science"), whereas critics tend to advocate the precautionary principle.

Calls for science-based risk assessments often come from stakeholders who oppose increased regulation and want to see GM technologies developed and marketed. Specifically, they argue that before a technology should be regulated for possible risks, those risks must be demonstrated as scientifically real and quantifiable. Although the definition of "sound science" is itself controversial, proponents state that regulatory agencies such as the EPA and FDA have been too quick to regulate technologies without good evidence—arguing that such government interference not only creates financial disincentives for technological innovation but actually causes social harm by delaying or preventing important technologies from becoming available. Such a perspective views government regulation as a risk in itself.

By contrast, advocates of the precautionary principle stress the existence of scientific uncertainties associated with many modern environmental and health issues. They have proposed a framework for decision making that errs on the side of precaution ("better safe than sorry"). Major components include the following: (1) anticipate harm and prevent it; (2) place the burden of proof on polluters to provide evidence of safety, not on society to prove harm; (3) always examine alternative solutions; and (4) include affected parties in democratic governance of technologies. Critics argue that the precautionary principle is little more than a scientific disguise for antitechnology politics.

In line with a precautionary approach to regulation, some governments (England, for example) have focused on genetic engineering as a process that may pose novel

environmental or health risks. Other governments (for example, the United States and Canada) focus instead on the product, the GMO itself. Such countries generally do not single out GMOs for special regulation, beyond what is typical for other products. In addition, some governments have restricted the use of GMOs because of concerns about their social, economic, and ethical implications. Austria, for example, requires GMOs used in agriculture to be "socially sustainable."

Global Arena

International law also reflects controversy over regulating GMOs. The agreements of the World Trade Organization, the international body that develops and monitors ground rules for international trade, initially set out an approach similar to that of the United States. In the year 2000, however, more than 130 countries adopted an international agreement called the Cartagena Protocol on Biosafety, which promotes a precautionary approach to GMOs. This conflict has been a matter of much speculation and will likely feature in trade disputes over GM foods in the future.

Labeling of GM foods represents another contentious regulatory issue. Some governments take the position that if GMOs are found to be "substantially equivalent" to existing foods, they do not need to be labeled. In the United States, for example, food manufacturers may voluntarily label foods as "GMO-free," but there is no requirement to note when foods contain GMOs. The European Union and China, on the other hand, require foods made with GMOs to be labeled as such. In countries where labeling is required, there are typically fierce debates about tolerance levels for trace amounts of GMOs in foods meant to be GMO-free.

Philosophical Debate

One dimension of the public debate about GMOs that is difficult to resolve is the question of whether it is morally, ethically, and culturally appropriate to manipulate the genetic makeup of living things. Some people respond with revulsion to the idea that scientists can move genes across species boundaries, putting fish genes into a strawberry, for instance. For some, this feeling stems from a philosophical belief that plants and animals have intrinsic value that should not be subordinated to human needs and desires. Unease with gene transfer may also be based on religious belief, such as the conviction that the engineering of living things is a form of playing God. But where is the line between divine responsibilities and human stewardship of the Earth? Some religious leaders, such as the Pope, have taken the position that if GMOs can be used to end world hunger and suffering, it is ethical to create them.

Evolutionary biologists point out that boundaries between species are not as rigid, distinct, and unchanging as critics of genetic engineering imply. All living things have some genes in common because of shared common ancestors. Furthermore, the movement

of genes across species boundaries without sexual reproduction happens in a process called horizontal gene transfer, which requires no human intervention. Horizontal gene transfer has been found to be common among different species of bacteria and to occur between bacteria and some other organisms.

Regardless of the scientific assessment of the "naturalness" of genetic engineering, it is highly unlikely that all people will come to agreement on whether it is right to create GMOs, and not only for religious reasons. Those with philosophical beliefs informed by deep ecology or commitment to animal rights are unlikely to be persuaded that genetic engineering is ethical. Furthermore, many indigenous peoples around the world understand nature in ways that do not correspond with Western scientific ideas.

Given the diversity and incompatibility of philosophical perspectives, should we bring ethics, morality, and cultural diversity into policy decisions, scientific research, and the regulation of GMOs? If so, how? Some have proposed that labeling GMOs would enable people with religious, cultural or other ethical objections to avoid GMOs. Others see widespread acceptance of GMOs as inevitable and judge philosophical opposition as little more than fear of technology. These issues often become sidelined in risk-centered debates about GMOs but remain at the heart of the controversy about this technology.

Seeking Greater Yields

As the world's population continues to grow, many regions may face food shortages with increasing frequency and severity. A variety of groups, including the Food and Agriculture Organization of the United Nations, anticipate that genetic engineering will aid in reducing world hunger and malnutrition, for instance, by increasing the nutritional content of staple foods and increasing crop yields. Such claims have encountered scientific and political opposition. Critics point out that conventional plant-breeding programs have vastly improved crop yields without resorting to genetic engineering and that GMOs may create novel threats to food security, such as new environmental problems.

Whether or not GMOs will increase agricultural productivity, it is widely recognized that greater yields alone will not end world hunger. Food policy advocacy groups such as Food First point out that poverty and unequal distribution of food, not food shortage, are the root causes of most hunger around the world today. In the United States, where food is abundant and often goes to waste, 38 million people are "food insecure," meaning that they find it financially difficult to put food on the table. Similarly, India is one of the world's largest rice exporters, despite the fact that over one-fifth of its own population chronically goes hungry.

Distribution of GM crops as emergency food aid is also fraught with controversy. Facing famine in 2003, Zambia's government refused shipments of corn that contained GMOs, citing health worries and concerns that the grains, if planted, would contaminate local crop varieties. U.S. government officials blamed anti-GMO activists for scaring

GOLDEN RICE

For over 15 years, Swiss researchers have been developing "golden rice," a type of GM rice that contains increased levels of beta carotene, which is converted by the human body into vitamin A. The aim of the research is to combat vitamin A deficiency (a significant cause of blindness among children in developing countries), yet the project has drawn criticism. Some critics see golden rice as a ploy to gain wider enthusiasm for GMOs rather than a genuine solution to widespread malnutrition. Advocates of sustainable agriculture argue that vitamin A deficiency could be ended if rice monocultures were replaced with diverse farming systems that included production of green leafy vegetables, sweet potatoes, and other sources of beta carotene. Scientists also continue to investigate whether golden rice would provide sufficient levels of beta carotene and whether Asian farmers and consumers would be willing to produce and eat the bright orange rice.

Zambian leaders into blocking much-needed food aid to starving people. A worldwide debate erupted about the right of poor nations to request non-GMO food aid and the possibility that pro-GMO nations such as the United States might use food aid as a political tool.

Patenting Life

Patents are government guarantees that provide an inventor with exclusive rights to use, sell, manufacture, or otherwise profit from an invention for a designated time period, usually around 20 years. In the United States, GMOs and gene sequences are treated as inventions under the patent law. Laws on patenting GMOs vary around the world, however. Many legal issues are hotly debated, both in national courts and in international institutions such as the World Trade Organization and the United Nations Food and Agriculture Organization. Should one be able to patent a living thing, as though it were any other invention? Unlike other technologies, GMOs are alive and are usually able to reproduce. This raises novel questions. For instance, do patents extend to the offspring of a patented GMO?

Agricultural biotechnology companies stress that they need patents as a tool for collecting returns on investments in research and development. Patents ensure that farmers do not use GM seeds (collected from their own harvests) without paying for them. Monsanto Company, for instance, has claimed that its gene patents extend to multiple generations of plants that carry the gene. The biotechnology industry argues that the right to patent and profit from genes and GMOs stimulates innovation in the agricultural and medical fields. Without patents, they say, companies would have little incentive to invest millions of dollars in developing new products.

Complicating the issue, however, is evidence that biotechnology patents increasingly hinder scientific research. University and corporate scientists sometimes find their work

hampered by a "patent thicket," when the genes and processes they wish to use have already been patented by multiple other entities. It can be costly and time-consuming to negotiate permissions to use the patented materials, slowing down research or causing it to be abandoned.

Advocacy groups, such as the Council for Responsible Genetics, argue that patents on genes and GMOs make important products more expensive and less accessible. These critics worry that large corporations are gaining too much control over the world's living organisms, especially those that provide food. Some disagree with the idea that societies should depend on private companies to produce needed agricultural and medical innovations. Such research, they say, could be funded exclusively by public monies, be conducted at public institutions, and produce knowledge and technology freely available to anyone.

Furthermore, a wide variety of stakeholders, from religious groups to environmentalists, have reached the conclusion that "patenting life" is ethically and morally unacceptable. Patenting organisms and their DNA treats living beings and their parts as commodities to be exploited for profit. Some say this creates a slippery slope toward ownership and marketing of human bodies and body parts.

Many controversies over GMOs center on their perceived or predicted environmental impacts. Although both benefits and negative impacts have been realized, much of the debate also involves speculation about what might be possible or likely with further research and development.

With respect to GM crops, there are a variety of potential benefits. Crops that have been genetically engineered to produce their own pesticides (plant-incorporated protectants, or PIPs) eliminate human exposures to pesticides through hand or aerial spray treatments and may reduce the use of more environmentally harmful pesticides. Crops that have been genetically engineered with tolerance to a certain herbicide allow farmers to reduce soil tillage, a major cause of topsoil loss, because they can control weeds more easily throughout the crop's life cycle. If GMOs increase agricultural yields per unit of land area, less forested land will need to be converted to feed a growing population. Finally, some believe that GMOs represent a new source of biodiversity (albeit human-made).

The potential environmental harms of GM crops are also varied. PIPs may actually increase overall pesticide usage as target insect populations develop resistance. PIPs and herbicide-tolerant crops may create non-target effects (harm to other plants, insects, animals, and microorganisms in the agricultural environment). GM crops may crossbreed with weedy natural relatives, conferring their genetic superiority to a new population of "superweeds." GMOs may reproduce prolifically and crowd out other organisms—causing ecological damage or reducing biodiversity. Finally, because GMOs have tended to be developed for and marketed to users that follow industrial approaches to agriculture, the negative environmental impacts of monocultures and factory farming are reproduced.

MONARCH BUTTERFLIES

Protesters dressed in butterfly costumes have become a regular sight at anti-GMO demonstrations. What is the story behind this ever-present symbol of anti-GMO activism? In 1999 John Losey and colleagues from Cornell University published a study suggesting that pollen from GM corn could be lethal to monarch butterflies. The corn in question had been genetically modified to express an insecticidal protein throughout the plant's tissues, including the pollen grains. The genetic material for this modification came from bacteria that are otherwise used to create a "natural" insecticide approved for use on organic farms. The GM corn thus represented both an attempt to extend a so-called organic method of crop protection to conventional agriculture (an environmental benefit) and a potential new threat to a beloved insect already threatened by human activities. Controversy erupted over the significance and validity of the Losey study, and the monarch butterfly remains symbolic of the controversy over the environmental pros and cons of GMOs.

With regard to GM microorganisms, proponents point to the potential for GMOs to safely metabolize toxic pollution. Critics emphasize the possibility of creating "living pollution," microorganisms that reproduce uncontrollably in the environment and wreak ecological havoc.

GM animals also offer a mix of potential environmental harms and benefits. For example, GM salmon, which grow faster, could ease the pressure on wild salmon populations. On the other hand, if GM salmon escape captivity and breed in the wild, they could crowd out the diversity of salmon species that now exist.

No long-term scientific studies have been conducted to measure the health impacts of ingesting GMOs. As a result, there is an absence of evidence, which some proponents use as proof of GMOs' safety. Critics counter that "absence of evidence" cannot serve as "evidence of absence" and accuse biotechnology corporations and governments of conducting an uncontrolled experiment by allowing GMOs into the human diet. Several specific themes dominate the discussion:

- Substantial equivalence. If GMOs are "substantially equivalent" to their natural relatives, GMOs are no more or less safe to eat than conventional foods. Measuring substantial equivalence is itself controversial: Is measuring key nutrients sufficient? Do animal-feeding studies count? Must every transgenic "event" be tested, or just types of GMOs?
- Allergies. Because most human allergies occur in response to proteins, and GMOs introduce novel proteins to the human diet (new sequences of DNA and new gene products in the form of proteins), GMOs may cause novel human allergies. On the other hand, some research has sought to genetically

modify foods in order to remove proteins that cause widespread allergies (e.g., the Brazil nut).

- Horizontal gene transfer. Because microorganisms and bacteria often swap genetic material, the potential exists for bacteria in the human gut to acquire transgenic elements—DNA sequences that they would otherwise never encounter because of their nonfood origin. Debate centers on the significance of such events and whether genetic material remains sufficiently intact in the digestive tract to cause problems.
- Antibiotic resistance. Antibiotic-resistant genes are often included in the genetic material that is added to a target organism. These DNA sequences serve as "markers," aiding in the selection of organisms that have actually taken up the novel genetic material (when an antibiotic is applied, only those cells that have been successfully genetically modified will survive). Some fear that the widespread production of organisms with antibiotic resistance and the potential for transfer of such traits to gut bacteria will foster resistance to antibiotics that are important to human or veterinary medicine.
- Unpredictable results. Because the insertion of genetic material is not precise, genetic engineering may alter the target DNA in unanticipated ways. Existing genes may be amplified or silenced, or novel functioning genes could be created. A controversial study by Stanley Ewen and Arpad Pusztai in 1999 suggested alarming and inexplicable health effects on rats fed GM potatoes, despite the fact that the transgenic trait was chosen for its nontoxic properties. Unfortunately, most data on the health safety of GMOs remains proprietary (privately owned by corporations) and unavailable to the public for review.
- Second-order effects. Even when GMOs are not ingested, they may have health consequences when used to produce food. For example, recombinant bovine growth hormone (rBGH) was approved for use in increasing the milk production of dairy cows. No transgenic material passes into the milk, but rBGH fosters udder inflammation and mastitis in cows. As a result, milk from cows treated with rBGH includes higher-than-average levels of pus and traces of antibiotics, both of which may have human health impacts.

Segregating GMOs to Avoid Cross-Breeding

Given that most GMOs retain their biological ability to reproduce with their conventional counterparts, there exist a number of reasons to segregate GMOs (to prevent mixing or interbreeding). First, some consumers prefer to eat food or buy products that are made without GMOs. Second, some farmers wish to avoid patented GM crops, for instance, in order to retain the right to save their own seeds. Third, there may be a need for non-GMO plants and animals in the future—for instance, if GM foods are found to cause long-term health problems and must be phased out. Fourth, it is essential that

unauthorized GMOs or agricultural GMOs that produce inedible or medicinal compounds do not mix with or breed with organisms in the food supply.

For all of these reasons, the coexistence of GMOs and non-GMOs is a topic of heated debate around the world. There are a variety of possibilities for ensuring that GMOs and conventional organisms remain segregated. One possibility for the food industry is to use "identity preserved" (IP) production practices, which require farmers, buyers, and processors to take special precautions to keep GM plants segregated from other crops, such as using physical barriers between fields and using segregated transportation systems. Thus far, such efforts have proven unreliable, permitting, in some instances, unapproved transgenic varieties to enter the food supply. The biotechnology industry has advocated for standards that define acceptable levels of "adventitious presence"—the unintentional comingling of trace amounts of one type of seed, grain, or food product with another. Such standards would acknowledge the need to segregate GMOs from other crops but accept some mixing as unavoidable.

Critics of biotechnology, on the other hand, tend to see the mixing of GMOs with non-GMOs at any level as a kind of contamination or "biopollution," for which the manufacturers should be held legally liable. Because cross-pollination between crops and accidental mixture of seeds are difficult to eliminate entirely, critics sometimes argue that GMOs should simply be prohibited. For this reason, some communities, regions, and countries have declared themselves "GMO-free zones" in which no GMOs are released into the environment.

One possible technical solution to unwanted breeding between GMOs and their conventional relatives is to devise biological forms of containment. The biotechnology industry has suggested that Genetic Use Restriction Technologies (GURTs), known

GMOs ON THE LOOSE

In August 2006, the U.S. Department of Agriculture (USDA) announced that an unapproved variety of GM rice (Liberty Link Rice 601), manufactured and tested by Bayer CropScience a number of years earlier but never approved for cultivation, had been discovered to be growing throughout the U.S. long-grain rice crop. USDA attempted to reassure the public of the safety of the unapproved variety of rice. But when it was found in food supplies around the world, major importers stopped buying rice from the United States, causing prices for American exports to plummet. Hundreds of U.S. farmers filed a class action lawsuit against Bayer. Although it remains unclear how, exactly, the GM rice got into the seed supply, one possible explanation offered by the company is that it became mixed with "foundation" seeds used to develop seeds that are sold to farmers at a Louisiana State University rice breeding station. Rice breeders there had collaborated on the field trials for the experimental rice. From there, it seems, the rice was reproduced, spreading throughout the food system.

RECENT RESEARCH

In June 2010, a Russian study concerning genetically modified foods indicated long-term sterility as a result. The findings showed that hamsters three generations removed from those eating such foods could not reproduce. Genetically modified foods are in most supermarkets today, even though most Americans say they do not want them. In January 2010, the international *Journal of Biological Sciences* released a study showing the effects that genetically modified foods had on the health of mammals. Researchers analyzing the effects linked agricultural giant Monsanto's GM corn to organ damage in rats.

colloquially as "Terminator Technologies," may aid in controlling the reproduction of GM plants by halting GMO "volunteers" (plants that grow accidentally). GURTs make plants produce seeds that will not grow. Critics have mounted a largely successful worldwide campaign against Terminator Technology, calling attention to its original and central purpose: to force farmers to purchase fresh seeds every year. Other research efforts aim at controlling pollen flow, not seed growth. For instance, a number of EU research programs (Co-Extra, Transcontainer, and SIGMEA) are currently investigating ways to prevent GM canola flowers from opening; to use male-sterile plants to produce GM corn, sunflowers, and tomatoes; and to create transplastomic plants (GM plants whose pollen cannot transmit the transgenic modification).

Conclusion

Should there be more GM crops? Advocates of GMOs argue that currently marketed technologies (primarily herbicide-tolerant and pest-resistant corn, rice, and soy) represent mere prototypes for an expanding array of GMOs in agriculture. Three directions exist, with some progress in each area. First, genetic engineers could focus on incorporating traits that have a more direct benefit to consumers, such as increased nutrition, lower fat content, improved taste or smell, or reduced allergens. Second, existing technologies could be applied to more economically marginal crops, such as horticultural varieties and food crops important in the global south. Third, traits could be developed that would drastically reduce existing constraints on agriculture, such as crops with increased salt and drought tolerance or nonlegume crops that fix their own nitrogen. It remains to be seen how resources will be dedicated to these diverse research paths and who will benefit from the results.

Should there be GM animals? With animal cloning technology possible in more and more species, and some signs of acceptance of cloned animals for the production of meat in the United States, conventional breeding of livestock could veer toward genetic engineering. Scientists around the world are experimenting with genetic modification of animals raised for meat, and edible GM salmon are close to commercialization. GM pets may also be in the future, with one GM aquarium fish already commercially available.

Should there be GM "pharming"? Some companies are pursuing the development of GM crops that manufacture substances traditionally produced by industrial processes. Two directions exist. First, if vaccines or medications can be genetically engineered into food crops, the cost and ease of delivery of such pharmaceuticals could decrease dramatically, especially in the global south (the developing world). Second, crops might be modified to produce industrial products, such as oils and plastics, making them less costly and less dependent on petroleum inputs. A California-based company, Ventria Biosciences, already has pharmaceutical rice in production in the United States. Animals are also being genetically engineered to produce drugs and vaccines in their milk or eggs, raising questions about the ethics of using animals as "drug factories."

Should there be GM humans? Genetic technologies have entered the mainstream in prenatal screening tests for genetic diseases, but the genetic modification of humans remains hypothetical and highly controversial. "Gene therapy" experiments have attempted to genetically modify the DNA of humans in order to correct a genetic deficiency. These experiments have remained inconclusive and have caused unpredicted results, including the death of an otherwise healthy 18-year-old (Jesse Gelsinger). Even more controversial are calls for "designer babies," the genetic modification of sex cells (sperm and eggs) or embryos. Some advocate for such procedures only to correct genetic deficiencies, whereas others see attractive possibilities for increasing intelligence, improving physical performance, lengthening the life span, and choosing aesthetic attributes of one's offspring. Several outspoken scientists even predict (with optimism) that GM humans will become a culturally and reproductively separate species from our current "natural" condition. Critics not only doubt the biological possibility of such developments but also question the social and ethical impacts of embarking on a path toward such a "brave new world."

See also **Biotechnology; Food Safety; Genetic Engineering**

Further Reading

Bailey, Britt, and Marc Lappé, eds., *Engineering the Farm: Ethical and Social Aspects of Agricultural Biotechnology.* Washington, DC: Island Press, 2002.

Charles, Daniel, *Lords of the Harvest: Biotech, Big Money, and the Future of Food.* Cambridge, MA: Perseus, 2001.

Clapp, Jennifer, and Doris Fuchs, eds., *Corporate Power in Global Agrifood Governance.* Cambridge, MA: MIT Press, 2009.

Cook, Guy, *Genetically Modified Language: The Discourse of Arguments for GM Crops and Food.* London: Routledge, 2004.

Kloppenburg, Jack Ralph, Jr., *First the Seed: The Political Economy of Plant Biotechnology 1492–2000.* 2d ed. Madison: University of Wisconsin Press, 2005.

Miller, Henry I., and Gregory P. Conko, *The Frankenfood Myth: How Protest and Politics Threaten the Biotech Revolution.* Westport, CT: Praeger, 2004.

Nestle, Marion, *Safe Food: Bacteria, Biotechnology, and Bioterrorism.* Berkeley: University of California Press, 2003.

Sanderson, Colin J., *Understanding Genes and GMOs.* Hackensack, NJ: World Scientific, 2007.

Schacter, Bernice, *Issues and Dilemmas of Biotechnology: A Reference Guide.* Westport, CT: Greenwood Press, 1999.

Schurman, Rachel, and Dennis D. Kelso, *Engineering Trouble: Biotechnology and Its Discontents.* Berkeley: University of California Press, 2003.

GLOBAL WARMING

Jayne Geisel

Since the 1980s, global warming has been a hotly debated topic in the popular media and among the general public, scientists, and politicians. The debate is about whether global warming has been occurring, whether it is an issue with which the global community needs to be concerned, and whether the current global warming is part of natural cycles of warming and cooling. Currently, the nature of the debate has begun to focus on whether there is anything we can do about global warming. For some, the problem is so insurmountable, and there seems to be so little we can do, that it is easier to entirely forget there is a problem.

In order to understand the changes that need to be made to have any meaningful and lasting impact on the level of global warming, the science behind the greenhouse effect must be understood.

The Scope and Nature of the Problem

The average temperature on Earth is approximately 15 degrees Celsius. The surface of the Earth stays at such a consistent temperature because its atmosphere is composed of gases that allow for the retention of some of the radiant energy from the sun, as well as the escape of some of that energy. The majority of this energy, in the form of heat, is allowed to leave the atmosphere, essentially because the concentrations of gases that trap it are relatively low. When solar radiation escapes the atmosphere, it is largely due to the reflection of that energy from clouds, snow, ice, and water on the surface of the Earth. The gases that trap heat are carbon dioxide, methane, nitrous oxides, and chlorofluorocarbons. These gases are commonly known as greenhouse gases.

In the last 60 years, the percentage of greenhouse gases (in particular, carbon dioxide) has begun to climb. Although the global increase in these gases has been noticed since the beginning of the Industrial Revolution approximately 200 years ago, the increase since the 1950s has been much more dramatic. Carbon dioxide comes from such sources as plant and animal respiration and decomposition, natural fires, and volcanoes. These

RECORDS OF GLOBAL WARMING

The historical record of weather and climate is based on the analysis of air bubbles trapped in ice sheets. By analyzing the ancient air trapped in these bubbles, trends in climate change over very long time periods can be observed. This record indicates that methane is more abundant in the earth's atmosphere now than it was at any time during the past 400,000 years. Since 1750, average global atmospheric concentrations of methane have increased by 150 percent from approximately 700 to 1,745 parts per billion by volume (ppbv) in 1998. Over the past decade, although methane concentrations have continued to increase, the overall rate of methane growth has slowed. In the late 1970s, the growth rate was approximately 20 ppbv per year. In the 1980s, growth slowed to 9 to 13 ppbv per year. The period from 1990 to 1998 saw variable growth of between 0 and 13 ppbv per year. An unknown factor, and a point of controversy, is the amount of methane in the polar ice caps. It is unknown how much methane in a currently inert form could be released as a gas into the atmosphere if the ice caps melt into water. If a large amount of polar methane gas is released faster than current models predict, global warming could accelerate.

natural sources of carbon dioxide replace atmospheric carbon dioxide at the same rate it is removed by photosynthesis. Human activities, however, such as the burning of fossil fuels, pollution, and deforestation, add excess amounts of this gas and therefore disrupt the natural cycle of carbon dioxide.

Scientists have discovered this increase in carbon dioxide and other greenhouse gases by drilling into ice caps at both the north and south poles and in glaciers and by taking ice-core samples that can then be tested. Ice cores have rings, similar to the rings found in trees, which allow for accurate dating. When snow and water accumulate each season to form the ice in these locations, air bubbles are trapped that are now tested for the presence of greenhouse gases. These studies have shown drastic changes in the levels of carbon dioxide.

Global warming is significantly affected by the burning of fossil fuels and the massive loss of vegetation. First, the loss of vegetation removes photosynthetic plants that consume carbon dioxide as part of their life cycle, and second, the burning of fossil fuels releases carbon dioxide that has been stored for thousands of years in decayed plant and animal material into the atmosphere. These two processes have increased significantly globally in the last 100 years.

Although the rate of warming seems small and gradual, it takes only minor temperature fluctuations to have a significant effect on the global scale. During the last ice age, temperatures were less than 5 degrees Celsius cooler than they are today. This small change in temperature is so significant because of the properties of water. Water has a high specific heat, meaning it takes a large amount of heat energy to warm water. The

result of this is that it takes a long time to warm or cool large bodies of water. This effect can be noticed in the temperate climate experienced in coastal areas. Once the oceans begin to warm, they will stay warm for an extended period of time. This is critical for life that has adapted to the temperatures currently experienced in the oceans.

The other important and alarming factor related to global warming and the warming of the oceans is the loss of the ice caps at both poles. This melting of ice has the potential to raise the level of the oceans worldwide, which will have potentially disastrous effects for human populations. The largest urban centers worldwide are located in coastal areas, which have the potential to flood. This will displace millions, and possibly billions, of people.

These changes are only gradual when considered within a human time frame. In terms of geological time, the change is extremely fast. This precipitous change will have far-reaching effects on both flora and fauna because most species will not have time to adapt to changes in climate and weather patterns.

The result of this will be extinctions of species on a scale that is difficult to predict. It is certain that changes that have already taken place have had an impact on polar species, such as polar bears, because that habitat is where the changes are most strongly felt right now.

Socioeconomic Disparities

One of the largest issues in the debate on global warming is the difference in the ability to deal with mitigation and the large disparity in the consequences felt between developing and developed nations. The reality faced by many developing nations of poverty and subsistence living means that those populations do not have the ability to withstand some of the changes with which the world is faced. The most vulnerable people living in developed countries will not be able to adapt as easily.

These people, who generally do not contribute as much to the problems associated with an increase in greenhouse gases, will suffer the consequences most severely. Their contributions to global warming are less because many in this segment of the global population do not own cars, do not have electricity or refrigerators with chlorofluorocarbons, do not use air conditioning, and so on. Their lives are generally more closely tied with climate than those more fortunate, however. Their work may involve physical labor outside, they usually are involved in agriculture, or they may not be able to access health care for the inevitable increase in climate-related diseases such as malaria. The large and growing populations of many developing nations live mainly in coastal areas; less privileged people will not have the resources needed to move away from rising water levels. This means there will be a large refugee population that the international community will not easily be able to help.

Rapidly developing nations such as China and India, playing catch-up with the West, are becoming, if they are not already, major contributors to global warming. Older

technologies, outdated equipment, and the nature of developing an industrial sector are largely to blame. In the development stage of industry, high carbon dioxide–emitting sectors such as shipping and manufacturing are predominant. Worldwide, work is needed to assist nations in developing their economies without sacrificing the environment to do so.

Global warming is not merely an issue of science and environmental protection; it is also a humanitarian and ethical concern. The methods of mitigation are being debated, and there is no clear answer to the questions concerning the appropriate measures to take. There are generally two appropriate responses. The first is to take any and all steps to immediately reduce the amount of pollution and greenhouse gas emission worldwide, or there will be no life on Earth. The second approach is based on the thought that nothing we do will have a lasting effect on the amount of pollution, so we must better equip the people of the world to deal with the consequences of this crisis. This means breaking

KYOTO PROTOCOL

The Kyoto Protocol, sometimes known as the Kyoto Accord, is an international agreement requiring the international community to reduce the rate of emission of greenhouse gases causing global warming. It was signed in Kyoto, Japan, in 1997, to come into effect in 2005.

The Kyoto Protocol was initiated by the United Nations Framework Convention on Climate Change (UNFCCC) in order to extract a commitment from developed nations to reduce greenhouse gas emissions. The hope was that with developed countries leading the way, businesses, communities, and individuals would begin to take action on climate change.

The Kyoto Protocol commits those countries that have ratified it to reduce emissions by certain amounts at certain times. These targets must be met within the five years from 2008 to 2012. This firm commitment was a major first step in acknowledging human responsibility for this problem, as well as taking a step toward rectifying the crisis. Not all developed countries have ratified the protocol, however, with the United States and Australia among those that have not. This is of great concern, given that the United States is the worst offender when it comes to greenhouse gas emissions.

Criticisms of the protocol are that it puts a large burden for the reduction of greenhouse pollution on developed nations, when developing nations are set to far surpass current levels of emissions. As well, the protocol does not specify what atmospheric levels of carbon dioxide are acceptable, so reduction is not a concrete enough goal to have any real lasting effect. Finally, the Kyoto Protocol is seen as a bureaucratic nightmare and too expensive a solution for this problem compared with the amount of gain that would result.

the poverty cycle, addressing such issues as disease and access to good food and water, and providing appropriate education on a global scale.

Another debate surrounding mitigation of global warming is whether individual effort will have an effect on rates of carbon dioxide and other greenhouse gases. Will one person choosing to ride his or her bike or take public transit reduce the level of emissions across the globe? If one person uses electricity generated by wind instead of coal, is that enough? Critics say that public apathy is so high, and there is such a strong sense of entitlement to resources, that there will never be enough people making the so-called green choice to make any kind of a difference at all. Others feel that all change must happen at a grassroots level and that every step counts and is important. If every single person in North America cut by half the number of hours they spent driving, there would of course be a significant decrease in pollution.

Conclusion

Rising global temperatures are expected to raise the sea level and alter the climate. Changing regional climates alter forests, crop yields, and water supplies. The most recent reports from the United Nations Food and Agriculture Organization indicate that wheat harvests are declining because of global warming. Some experts have estimated that there will be a 3 to 16 percent decline in worldwide agricultural productivity by 2080. Population is expected to rise, however.

The political controversies around global warming focus on the results of climate changes. Equity, value clashes, and uncertainty all promise to make climate change controversial. Some may gain and others will lose. There may be geopolitical shifts in world power. All efforts toward sustainability will be affected by global warming. Closer attention to environmental conditions of the climate, earth, land, air, and water is required to accommodate increasing population growth and concomitant environmental impacts. International treaties, such as Kyoto and the recent Copenhagen Summit, will be pointed to in seeking accords. Both the effects and causes of global warming promise to be a continuing controversy.

See also **Climate Change; Coal; Fossil Fuels; Sustainability (vol. 1)**

Further Reading

An Inconvenient Truth, Documentary directed by David Guggenheim, 2006.

Archer, David, *The Climate Crisis: An Introductory Guide to Climate Change.* New York: Cambridge University Press, 2010.

Broecker, William S., and Robert Kunzig, *Fixing Climate: What Past Climate Changes Reveal about the Current Threat—and How to Counter It.* New York: Hill & Wang, 2008.

Dow, Kirstin, and Thomas E. Downing, *The Atlas of Climate Change: Mapping the World's Greatest Challenge.* Berkeley: University of California Press, 2007.

Flannery, Tim, *The Weather Makers: How We Are Changing the Climate and What It Means for Life on Earth.* Toronto: HarperCollins, 2006.

Houghton, J. T., *Global Warming: The Complete Briefing.* New York: Cambridge University Press, 2009.

McKibben, Bill, *Earth: Making a Life on a Tough New Planet.* New York: Times Books, 2010.

Monbiot, George, *Heat: How to Stop the Planet from Burning.* Toronto: Random House, 2006.

H

HIV/AIDS

Laura Fry

Human immunodeficiency virus (HIV), a virus affecting the human body and organs, impairs the immune system and the body's ability to resist infections, leading to acquired immunodeficiency syndrome (AIDS), a collection of symptoms and infections resulting from damage to the immune system. Medical confusion and prolonged government indifference to the AIDS epidemic was detrimental to early risk reduction and health education efforts.

Initial facts about AIDS targeted unusual circumstances and unusual individuals, thereby situating the cause of AIDS in stigmatized populations and "at risk" individuals. Although current efforts to curb the spread of HIV/AIDS are based on a more realistic understanding of transmission and infections, government policies and educational campaigns still do not fully acknowledge the socioeconomics, drug use practices, cultural attitudes, and sexual behaviors of populations. Global HIV prevalence stabilized with improvements in identification and surveillance techniques, but reversing the epidemic remains difficult. The pervasive spread of HIV in particular populations and geographic areas continues as economic realities influence infection rates.

Since the first recognized and reported death on June 5, 1981, AIDS has killed more than 25 million people, making HIV/AIDS one of the most destructive epidemics in history. The number of new HIV infections per year peaked in the late 1990s, with over 3 million new infections, but the infection rate never plummeted.

Although the percentage of people infected with HIV leveled off in 2007, the number of people living with HIV continues to increase. The combination of HIV acquisition and longer survival times creates a continuously growing general population. Treatments to decelerate the virus's progression are available, but there is no known cure for HIV/AIDS.

According to 2008 statistics—released in December 2009 by the World Health Organization (WHO) Joint United National Program on HIV/AIDS—60 million people were infected worldwide since the epidemic began. An estimated 33.4 million people were living with HIV, of whom 2.1 million were children under age 15. Within that figure, as many as 610,000 children were born with HIV. Those figures are up slightly from the previous year: about 0.6 percent. Young people account for around 40 percent of new adult (age 15 and above) HIV infections worldwide. In 2008, as many as 3 million people became newly infected, and some 2 million died that year of AIDS-related complications.

Transmission

Two strains of HIV, HIV-1 and HIV-2, infect humans through the same routes of transmission, but HIV-1 is more easily conveyed and more widespread. Transmission of HIV occurs primarily through direct contact with bodily fluids—for example, blood, semen, vaginal fluid, breast milk, and preseminal fluid. Blood transfusions, contaminated hypodermic needles, pregnancy, childbirth, breastfeeding, and anal, vaginal, and oral sex are the primary forms of transmission. There is currently some speculation that saliva is an avenue for transmission, as evidenced by children contracting HIV through prechewed food, but research is ongoing to determine if this hypothesis is correct.

Labeling a person HIV-positive or diagnosing AIDS is not always consistent. HIV is a retrovirus that primarily affects the human immune system by directly and indirectly destroying $CD4^+$ T cells, a subset of T cells responsible for fighting infection. AIDS is the severe acceleration of an HIV infection. When fewer than 200 $CD4^+$ T cells per microliter of blood are present, cellular immunity is compromised; in the United States, a diagnosis of AIDS results. In Canada and other countries, a diagnosis of AIDS occurs only if an HIV-infected person has one or more AIDS-related opportunistic infections or cancers. The WHO grouped infections and conditions together in 1990 by introducing a "stage system" for classifying the presence of opportunistic infections in HIV-positive individuals. The four stages of an HIV infection were updated in 2005, with stage 4 as the indicator of AIDS. Definitions for surveillance and clinical staging were clarified and officially revised in 2006. The symptoms of AIDS do not normally develop in individuals with healthy immune systems; bacteria, viruses, fungi, and parasites are often controlled by immune systems not damaged by HIV.

HIV affects almost every organ system in the body and increases the risk of developing opportunistic infections. *Pneumocystis carinii* pneumonia (PCP) and tuberculosis

(TB) are the most common pulmonary illnesses in HIV-infected individuals. In developing countries, PCP and TB are among the first indications of AIDS in untested individuals. Esophagitis, the inflammation of the lining of the lower end of the esophagus, often results from fungal (candidiasis) or viral (herpes simplex-1) infections. Unexplained chronic diarrhea, caused by bacterial and parasitic infections, is another common gastrointestinal illness affecting HIV-positive people. Brain infections and dementia are neurological illnesses that affect individuals in the late stages of AIDS. Kaposi's sarcoma, one of several malignant cancers, is the most common tumor in HIV-infected patients. Purplish nodules often appear on the skin, but malignancies also affect the mouth, gastrointestinal tract, and lungs. Nonspecific symptoms such as low-grade fevers, weight loss, swollen glands, sweating, chills, and physical weakness accompany infections and are often early indications that an individual has contracted HIV.

Treatment

There is currently no cure or vaccine for HIV/AIDS. Avoiding exposure to the virus is the primary technique for preventing an HIV infection. Antiretroviral therapies, which stop HIV from replicating, have limited effectiveness. Postexposure prophylaxis (PEP), an antiretroviral treatment, can be administered directly after exposure to HIV. The four-week dosage causes numerous side effects, however, and it is not 100 percent effective. For HIV-positive individuals, the current treatment is "cocktails," a combination of drugs and antiretroviral agents administered throughout a person's life span. Highly active antiretroviral therapy (HAART) stabilizes a patient's symptoms and viremia (the presence of viruses in the blood), but the treatment does not alleviate the symptoms of HIV/AIDS. Without drug intervention, typical progression from HIV to AIDS occurs in 9 to 10 years: HAART extends a person's life span and increases survival time by 4 to 12 years. Based on the administration of cocktails and the increase in the number of people living with HIV/AIDS, the prevailing medical opinion is that AIDS is a manageable chronic disease. Initial optimism surrounding HAART, however, is tempered by recent research on the complex health problems of AIDS-related longevity and the costs of antiretroviral drugs. HAART is expensive, aging AIDS populations have more severe illnesses, and the majority of the world's HIV-positive population do not have access to medications and treatments.

Beginnings

In 1981 the U.S. Centers for Disease Control and Prevention (CDC) first reported AIDS in a cluster of five homosexual men who had rare types of pneumonia. The CDC compiled four "identified risk factors" in 1981: male homosexuality, IV drug use, Haitian origin, and hemophilia. The "inherent" link between homosexuality and HIV was the primary focus for many health care officials and the media, with drug use a close second.

The media labeled the disease gay-related immune deficiency (GRID), even though AIDS was not isolated to the homosexual community. GRID was misleading, and at a July 1982 meeting, "AIDS" was proposed. By September 1982 the CDC had defined the illness and implemented the acronym AIDS to reference the disease. Despite scientific knowledge of the routes and probabilities of transmission, the U.S. government implemented no official, nationwide effort to clearly explain HIV mechanics or promote risk reduction until the surgeon general's 1988 campaign. Unwillingness to recognize HIV's pervasiveness or to fund solutions produced both a national fantasy about the AIDS epidemic and sensationalized public health campaigns in the mass media.

Early Prevention: Clean Living

Prevention advice reinforced ideas of safety and distance. The citizenry was expected to avoid "risky" behavior by avoiding "at risk" populations. Strategies to prevent HIV/AIDS were directed at particular types of people who were thought to engage in dangerous behaviors. Homosexual sex and drug use were perceived to be the most risky behaviors; thus heterosexual intercourse and not doing drugs were constructed as safe. Disease prevention programs targeted primarily gay populations but were merely health precautions for everyone else—individuals not at risk.

Citizens rarely considered how prevention literature and advice applied to individual lives because the public was relatively uninformed about the routes of HIV transmission. Subcultures were socially stigmatized as deviant, and at-risk populations were considered obscene and immoral. "Risk behavior" became socially constructed as "risk group," which promoted a limited understanding of how HIV was contracted. The passage of the Helms Amendment solidified both public perceptions and government legislation about AIDS and AIDS education. According to the amendment, federal funding for health campaigns could be renewed each year with additional amounts of money as long as such campaigns did not "promote" homosexuality and promiscuity. Despite lack of funding, much of the risk-reduction information that later became available to the public was generated by advocates within the homosexual community.

Although avoidance tactics were promoted by the national government, precautionary strategies were adopted and utilized by gay communities. Distributing information through newspapers, pamphlets, and talks, the community-based campaigns emphasized safe sex and safe practices. Using condoms regardless of HIV status, communication between sexual partners, and simply avoiding intercourse were universal precautions emphasized in both American and European gay health campaigns. With a nontransmission focus, safe sex knowledge was designed and presented in simple language, not medical terminology, so that the information was easy to understand. Although "don't ask, don't tell" strategies were still adopted by many gay men, the universal safe sex strategy employed by the gay community promoted discussions about sex without necessarily calling for private conversations. The visibility and accessibility to information helped

gay men understand HIV and promoted individual responsibility. The national pedagogy, by contrast, banned sexually explicit discussions in the public sphere. Individuals were encouraged to interrogate their partners in private without truly comprehending either the questions asked or the answers received. Lack of detailed information and the inability to successfully investigate a partner's sexual past facilitated a need for an organized method of identifying HIV-positive individuals.

With the intention of stemming HIV, the CDC's Donald Francis proposed, at the 1985 International Conference on AIDS in Atlanta, that gay men have sex only with other men who had the same HIV antibody status; accordingly, he presented a mathematical model for testing. Shortly thereafter, HIV testing centers were established, and the national campaign, centered on avoiding HIV-positive individuals, was implemented. Instead of adopting safe sex education and behaviors, the government merely inserted technology into existing avoidance paradigms. HIV tests were valid only if the last sexual exchange or possible exposure had occurred within six months to a year earlier. However, many people misinterpreted negative test results as an indicator of who was "uninfected," thus merely reinforcing educated guesses. With the test viewed as an ultimate assessment for determining a sexual partner's safety, many individuals relied on HIV test results to confirm individual theories of who was and was not infected. Unrealistic discussions about sexual practices and behaviors were detrimental to the American population, especially adolescents and young adults.

Youth and Economic Stratification

In 1990 epidemiologists confirmed that a wide cross-section of American youth were HIV-positive. Minority and runaway youth were particularly affected, but millions of young people had initiated sexual interactions and drug use in the previous decade. Because health campaigns focused on prevention, there was little and often no help for individuals who were infected. Diagnosing the onset of symptoms and tactics to delay AIDS progression were almost nonexistent. Instead of recognizing the sexual and drug practices of middle-class white kids, society classified young people into categories of "deviance": deviant individuals contracted HIV; innocent children did not. Refusing to acknowledge that young people were becoming infected, many parents and government officials impeded risk-reduction information. Consequently, few young people perceived themselves as targets of HIV infection, and much of the media attention focused on "tolerance" for individuals living with AIDS.

Under the false assumption that infections among youth occurred through nonsexual transmission, HIV-positive elementary school children and teenagers were grouped together and treated as innocent victims. Although drug use and needle sharing were prevalent behaviors in teenage initiation interactions, the public agenda focused on sexuality as the primary transmission route. Knowing about or practicing safe sex was dangerous; ignorance would prevent HIV. Representations of youth in the media reinforced

the naiveté and stereotypes that initially contextualized AIDS in the adult population; *New York Times* articles suggested HIV infections in gay youth were the result of liaisons with gay adults or experimentation among themselves. In a manner reminiscent of the initial constructions of AIDS in the 1980s, HIV-infected youth were effectively reduced to deviant, unsafe populations. Securing heterosexuality became, yet again, a form of safe sex and the primary prevention tactic for HIV. Refusal to acknowledge nonintercourse activities as routes for HIV transmission pervaded government policies of the 20th and 21st centuries.

Infected Heterosexual Women

Recommendations for avoiding HIV infections were limited in both scope and funding. Because heterosexual women were increasingly becoming infected, the U.S. Food and Drug Administration (FDA) approved the sale of female condoms in 1993. However, female condoms were largely unavailable, and the price was prohibitive for many women. Approved in 1996 by the FDA, the viral load test measured the level of HIV in the body. As with the female condom, the test was expensive and continues to be cost-prohibitive. Needle exchange programs demonstrated great effectiveness in reducing HIV infections via blood transmission. Although the U.S. Department of Health and Human Services recommended needle exchange programs in 1998, the Clinton administration did not lift the ban on the use of federal funds for such purposes. Needle exchange remains stigmatized, and funding continues to come primarily from community-based efforts. In 1998 the first large-scale human trials for an HIV vaccine began, but no vaccine has been discovered. Despite community and government efforts, people continue to become infected with HIV/AIDS.

With growing numbers of individuals contracting HIV, the government implemented some treatment strategies. The AIDS Drug Assistance Program (ADAP) was established to pay for HIV treatments for low-income individuals. In 1987 azidothymidine (AZT)/zidovudine (ZDV) became the first HIV/AIDS drug to receive the FDA's approval. AZT's toxicity was well documented, but the effectiveness of the long-term monotherapy was questionable. Nevertheless, AZT was administered to the population, and the FDA approved three generic formulations of ZDV on September 19, 2005. AZT continues to be the primary treatment in reducing the risk of mother-to-child transmission (MTCT), especially in developing countries. There were few effective treatments for children until August 13, 2007, when the FDA approved a fixed-dose, three-drug combo pill for children younger than 12 years old. Treatments are improvements for developing awareness of HIV/AIDS, but the realities of transmission and the costs associated with HIV infection remain largely ignored.

People Living with AIDS

People Living With AIDS (PWA, coined in 1983) became the faces of HIV infections, and such individuals provided the impetus for increased attention to the AIDS

epidemic. Rock Hudson, an actor world-renowned for his romantic, heterosexual love scenes, appeared on ABC World News Tonight and announced he had AIDS. He died shortly after his October 1985 appearance. President Ronald Reagan, a close friend of Hudson, mentioned AIDS in a public address in 1986, the first time a prominent politician specifically used the words HIV and AIDS. In 1987, the same year the CDC added HIV to the exclusion list, banning HIV-positive immigrants from entering the United States, Liberace, a musician and entertainer, died of AIDS. *Newsweek* published a cover story titled "The Face of Aids" on October 10, 1987, but the 16-page special report failed to truly dispense with the stereotypes of HIV infection. With the growing number of PWAs, government policies toward HIV changed somewhat. In 1988 the Department of Justice reversed the discrimination policy, stating that HIV/AIDS status could not be used to prevent individuals from working and interacting with the population. December 1, 1988, was recognized as the first World AIDS Day. However, even with such social demonstrations of goodwill, recognizable faces remained aloof; the public "saw" HIV but did not associate HIV with the general population until Ryan White, a so-called normal person, grabbed community attention.

Blood Transfusion

Ryan White, a middle-class, HIV-positive child became one of the most public and media-spotlighted individuals. He had hemophilia and contracted HIV through a blood transfusion. His blood-clotting disorder fit existing innocence paradigms and thus provided opportunities for discussions about HIV, intervention, and government aid. At age 13, White was banned from attending school, prevented from associating with his classmates, and limited to classroom interactions via the telephone. The discrimination White endured throughout his life highlighted how "normal" people were affected by public reactions and government policies. In 1990, the year White died at age 18, the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act was passed. With 150,000 reported AIDS cases in the United States, CARE directed attention to the growing incidences of HIV and aroused greater public compassion.

More Celebrities

The teen culture of the 1990s continued to be affected as additional celebrities were added to the seropositive list. Earvin "Magic" Johnson, an idolized basketball player and all-time National Basketball Association (NBA) star, announced his HIV-positive status in 1991. The "perversion" labels normally associated with HIV were momentarily suspended as the public discourse tried to fit Johnson's wholesome role-model status into the existing risk paradigm. Much of the public, including individuals in methadone clinics, referred to positive HIV serostatus as "what Magic's got" and avoided the stigmatized label of AIDS. The compassion and understanding for HIV-positive individuals was short-lived, however. Freddie Mercury, lead singer of the rock band Queen, died in

1991 of AIDS. Because he was a gay man, Mercury's life was quickly demonized, and he did not receive the same "clean living" recognition from the press. Preaching compassion was good in rhetoric but not in practice.

Limited public empathy did not quell the diversity of individuals affected by AIDS. In 1992, tennis star Arthur Ashe announced his HIV status. In the same year, teenager Rick Ray's house was torched (Ray, a hemophiliac, and his siblings were all HIV-positive). During 1993, Katrina Haslip, a leading advocate for women with AIDS in prison, died of AIDS, and Pedro Zamorn, a young gay man living with HIV, appeared as a cast member on MTV's *The Real World.* Zamorn died in 1994 at age 22. Olympic Gold Medal diver Greg Louganis disclosed his HIV status in 1995, which sent shock waves into the Olympic community. Louganis had cut his head while diving during the 1988 Olympics, and concern quickly entered scientific and media discussions about HIV transmission. The discrimination Louganis endured affected athletic policies and issues of participation in sports for HIV-positive athletes. Even though HIV/AIDS was the leading cause of death among African Americans in the United States in 1996, the public continued to focus on individuals whose faces, displayed in the media, informed much of the understanding of HIV in the United States.

Strategies for Improvement

During the June 2006 General Assembly High-Level Meeting on AIDS, the United Nations member states reaffirmed their approval of the 2001 Declaration of Commitment. Efforts to reduce the spread of AIDS focused on eight key areas, including reducing poverty and child mortality, increasing access to education, and improving maternal health. Universal access to comprehensive prevention programs, treatment, care, and support were projected outcomes for 2010. Strategies to improve HIV testing and counseling, prevent HIV infections, accelerate HIV/AIDS treatment and care, and expand health systems were four of the five suggestions WHO expected to implement. The sheer numbers of people infected with HIV, however, tempered the hope and optimism surrounding intervention techniques.

India continues to rank third in the world for HIV. Indonesia has the fastest-growing epidemic, and HIV prevalence among men has increased in Thailand. Eastern Europe and Central Asia have more than 1.5 million people living with HIV, a 10 percent decrease compared with 2007 figures. Sub-Saharan Africa continues to be the most affected region, with an average of 22.4 million people living with HIV. Current infection rates continue to be disproportionately high for women in sub-Saharan Africa. Women are more susceptible to HIV-1 infections, but their partners (usually men) are often the carriers and transmitters of HIV. For women as mothers, MTCT can occur in utero during the last weeks of pregnancy, during childbirth, and from breastfeeding. Although risk behavior has changed among young people in some African nations, the mortality rate from AIDS is high because of unmet treatment needs. Delivery of health service

and funding remain inadequate for prevention efforts and HIV treatments. The lowest incidence of HIV infection in the world is in Oceania, where considerably less than 1 percent of adults are infected (around 59,000), compared with Sub-Saharan Africa, where 5.2 percent or around 22.4 million adults carry the AIDS virus.

False Cures, AZT, Politics, and Science

The majority of the world's population does not have adequate access to health care or medical techniques that could prevent HIV infections. Universal precautions, such as avoiding needle sharing and sterilizing medical equipment, are not often followed because health care workers receive inadequate training and there are not enough supplies. Blood transfusions account for 5 to 15 percent of HIV transmissions because the standard donor selection and HIV screening procedures completed in industrial nations are not performed in developing countries. Health care workers' behaviors and patient interactions are affected by the lack of medical supplies, including latex gloves and disinfectants. Approximately 2.5 percent of all HIV infections in sub-Saharan Africa occur through unsafe health care injections. The implementation of universal precautions is difficult when funding is severely restricted or absent.

Education efforts are also constrained by the lack of funding. HIV prevalence has remained high among injecting drug users, especially in Thailand, where HIV rates are 30 to 50 percent. AIDS-prevention organizations advocate clean needles and equipment for preparing and taking drugs (syringes, cotton balls, spoons, water for dilution, straws, pipes, etc.). Cleaning needles with bleach and decriminalizing needle possession are advocated at "safe injection sites" (places where information about safe techniques are distributed to drug users). When needle exchanges and safe injection sites were established, there was a reduction in HIV infection rates. Individuals, especially young people, engaged in high-risk practices with drugs and sex, often because of a lack of disease comprehension. Although aware of HIV, young people continue to underestimate their personal risk. HIV/AIDS knowledge increases with clear communication and unambiguous information.

Questions surrounding HIV/AIDS have stemmed from both a lack of understanding and a desire to understand the complexities of the disease. Early misconceptions about transmission—casual contact (e.g., touching someone's skin), and engaging in any form of anal intercourse—created fear and folklore. Certain populations—homosexual men and drug users—were incorrectly identified as the only people susceptible to HIV. National pedagogy mistakenly proclaimed that open discussions about HIV or homosexuality would increase rates of AIDS and homosexuality in schools. The false belief that sexual intercourse with a virgin would "cure" HIV was particularly detrimental to many young women. Although much of the early fictional rhetoric was rectified through the distribution of scientific information, denial and delusion continue to influence individuals' perceptions of HIV/AIDS.

A small group of scientists and activists questioned the testing and treatment methods of HIV/AIDS, which influenced government policies in South Africa. Established in the early 1990s, the Group for the Scientific Re-Appraisal of the HIV/AIDS Hypothesis launched the Web site virusmyth.net and included a collection of literature from various supporters, including Peter Duesberg, David Rasnick, Eleni Papadopulos-Eleopulos, and Nobel Prize winner Karry Mullis. As a result, Thabo Mbeki, South Africa's president, suspended AZT use in the public health sector. At issue was whether AZT was a medicine or a poison and whether the benefits of AZT in MTCT outweighed the toxicity of the treatment. Retrospective analyses have raised criticisms about Mbeki's interference. The expert consensus is that the risks of AZT for MTCT were small compared with the reduction of HIV infection in children. The South African AZT controversy demonstrates how science may be interpreted in different ways and how politics influences public health decisions.

Scientific Ideology

The biological ideology of most scientific inquiry has influenced HIV investigations, with much research focused on understanding the molecular structure of HIV. During the late 1980s, Canadian infectious-disease expert Frank Plummer noticed that, despite high-risk sexual behavior, some prostitutes did not contract HIV. In spite of being sick, weak from malnourishment, and having unprotected sex with men who were known to have HIV, the women did not become seropositive. The scientific community became highly interested in the women (known as "the Nairobi prostitutes") and hypothesized that the women's immune systems defended them from HIV. Of the 80 women exposed to HIV-1 and determined to be uninfected and seronegative, 24 were selected for immunological evaluation. Cellular immune responses, like T cells, control the infection of HIV; helper T cells seem to recognize HIV-1 antigens. The small group of prostitutes in Nairobi remained uninfected even though their activities involved prolonged and continued exposure to HIV-1. Cellular immunity—not systemic humoral immunity (i.e., defective viral or HIV-antigens)—prevented HIV from infecting them. The Nairobi prostitutes' naturally occurring protective immunity from the most virulent strain of HIV was a model for the increased focus on the development of vaccines.

Historically, vaccine production has concentrated on antibodies and how the human body can be tricked into fighting an infection. A benign form of the virus infects the body, and the immune system's white blood cells respond; antibodies attack the virus in the bloodstream and cytotoxic T lymphocytes (T cells) detect infected cells and destroy them. Vaccines for measles, yellow fever, and pertussis operate within this same paradigm. HIV mutates rapidly, however, and different strains exist within the population. A vaccine for one subtype would not provide immunity to another HIV strain. The unpredictability of HIV requires a scientific transition in the research paradigm and a willingness to use human beings as test subjects.

For the effectiveness of a vaccine to be gauged, thousands of people will have to be part of the research trials. The ethical problems associated with human subjects and the costs of long-term investigations prohibit many researchers from committing to vaccine research. Additionally, the economic market mentality provides more incentive for making a product for mass consumption. The costs and risks of a vaccine limit financial gains for companies; inoculation against HIV reduces the number of consumers who need the product. Instead, antiretroviral medications and treatments are the primary focus for research funding. An AIDS vaccine would benefit the entire world, but no company or country is willing to devote the economic and scientific resources needed for such research. The International AIDS Vaccine Initiative, a philanthropic venture capital firm dedicated to finding a vaccine, has received funding from private and public donations, including significant contributions from the Bill and Melinda Gates Foundation. Researchers, however, continue to reduce the AIDS virus to its genetic components instead of approaching HIV vaccines from new perspectives.

Conclusion

The complexity of HIV creates difficulties in finding a single, permanent solution. Education and prevention have had limited success, and antiretroviral therapies cannot cure the vast number of people infected with HIV/AIDS. A partially effective vaccine or a vaccine that targets only one mutation of HIV is not a solution. Ignoring a population's behaviors, economic situations, and beliefs has proven detrimental to the AIDS epidemic. The difficulties of the disease make HIV/AIDS a formidable problem.

See also **Epidemics and Pandemics; Prescription Drug Costs (vol. 1); Social Justice (vol. 2)**

Further Reading

Abdool Karim, Salim S., and Quarraisha, "AIDS Research Must Link to Local Policy." *Nature* 463 (2010): 733–734.

Barton-Knott, Sophie, "Global HIV Prevalence Has Leveled Off." *UNAIDS.*http://www.unaids.org

Connell, R. W., "Social Class, Gay Men and AIDS Prevention." *Australian Journal of Public Health* 15, no. 3 (2010): 178–189.

Fowke, Keith, et al., "HIV-1-Specific Cellular Immune Responses among HIV-1-Resistant Sex Workers." *Immunology and Cell Biology* 78 (2000): 586–595.

Jakobsen, Janet, and Ann Pellegrini, *Love the Sin: Sexual Regulation and the Limits of Religious Tolerance.* Boston: Beacon Press, 2004.

Kallings, L. O., "The First Postmodern Pandemic: Twenty-Five Years of HIV/AIDS." *Journal of Internal Medicine* 263 (2008): 218–243.

Laumann, Edward, et al., *The Social Organization of Sexuality: Sexual Practices in the United States.* Chicago: University of Chicago Press, 1994.

Patton, Cindy, *Fatal Advice: How Safe-Sex Education Went Wrong.* Durham, NC: Duke University Press, 1996.

Pisani, Elizabeth, *The Wisdom of Whores: Bureaucrats, Brothels, and the Business of AIDS.* New York: Norton, 2009.

UNAIDS, "Overview of the Global AIDS Epidemic." *Report on the Global AIDS Epidemic.* http://www.unaids.org

UNAIDS, Global Facts and Figures, 2009. http://data.unaids.org/pub/FactSheet/2009/20091124_FS_global_en.pdf

U.S. Department of Health and Human Services HIV/AIDS, http://www.aids.gov

Weinel, Martin, "Primary Source Knowledge and Technical Decision-Making: Mbeki and the AZT Debate." *Studies in History and Philosophy of Science* 38 (2007): 748–760.

Whiteside, Alan, *HIV/AIDS: A Very Short Introduction.* New York: Oxford University Press, 2008.

World Health Organization, http://www.who.int/en

HORMONE DISRUPTORS: ENDOCRINE DISRUPTORS

Robert William Collin

The issue of hormone disruption is a significant environmental controversy with many emerging questions and concerns. Some scientists believe that a large number of the chemicals currently found in our air, water, soil, and food supply or added to livestock to increase growth have the ability to act as hormones when ingested by human beings and wildlife. Estrogen-mimicking growth hormones in chicken have been linked to early onset of menses and an increase in female attributes in male humans. The decrease in human sperm counts over the last 50 years may be due to hormone-disrupting chemicals. These chemicals increase profits for livestock producers and chemical manufacturers but may also increase food security and provide public health protection from other environmental risks.

Human Reactions to Chemicals in the Environment

There are many potentially dangerous chemicals in the environment, both human-made and naturally occurring. There is also a range of human reactions to environmental stressors such as these chemicals. The human body has many exposure vectors, such as skin absorption, ingestion, and breathing. There is a large variation in response to chemicals in heterogeneous populations such as that of the United States. This makes it very difficult to predict what dose of a chemical is safe enough for use in different applications, adding fuel to the overall controversy. Children take in more of their environment as they grow than they do when they reach adulthood.

Once in the body, chemicals travel and interact with various bodily systems before they are excreted. Throughout the body there are hormone receptor sites designed specifically for a particular hormone, such as estrogen or testosterone. Hormones are

produced primarily in the pituitary gland. Once attached, the hormone controls cell maturation and behavior.

The controversy about endocrine disruption begins because many common chemicals have molecular shapes similar to the shapes of many hormones. This means that these chemicals can fit themselves into cellular receptor sites. When this happens, the chemical either prevents real hormones from attaching to the receptor or alters the cell's behavior and/or maturation. The growth of the cell is seriously disrupted. Which chemicals have this effect, and in what dosages, is a major area of controversy. However, only about 2 percent of the chemicals sold in the United States are tested for public health safety. Even these tests are industry-controlled, critics claim, and their results are not based on vulnerability (e.g., children) or dose–response variations. Of particular concern are chemicals that contain chlorine. Chlorine-containing chemicals are themselves part of a larger class called persistent organic pollutants (POPs), which are also believed to be potential hormone disruptors. They pose a greater risk because they persist in the environment for a long time, taking longer to break down into nondangerous components. Because they take longer to break down, they increase exposure times and vectors to humans. Because exposure is increased, the risk from these chemicals, especially endocrine disruptors, is considered greater.

Endocrine Disruptors: How Do They Disrupt?

Endocrine disruptors are externally induced chemicals that interfere with the normal function of hormones. Hormones have many functions essential to human growth, development, and functioning. Endocrine disruptors can disrupt hormonal function in many ways. Here are some of them:

1. Endocrine disruptors can mimic the effects of natural hormones by binding to their receptors.
2. Endocrine disruptors may block the binding of a hormone to its receptor, or they can block the synthesis of the hormone. Finasteride, a chemical used to prevent male-pattern baldness and enlargement of the prostate gland, is an antiandrogen, since it blocks the synthesis of dihydrotestosterone. Women are warned not to handle this drug if they are pregnant, since it could arrest the genital development of male fetuses.
3. Endocrine disruptors can interfere with the transport of a hormone or its elimination from the body. For instance, rats exposed to polychlorinated-biphenyl pollutants (PCBs; see following) have low levels of thyroid hormone. The PCBs compete for the binding sites of the thyroid hormone transport protein. Without being bound to this protein, the thyroid hormones are excreted from the body.

Developmental toxicology and endocrine disruption are relatively new fields of research. Although traditional toxicology has pursued the environmental causes of death,

cancer, and genetic damage, developmental toxicology/endocrine disruptor research has focused on the roles that environmental chemicals may have in altering development by disrupting normal endocrine function of surviving animals.

Environmental Estrogens

There is probably no bigger controversy in the field of toxicology than whether chemical pollutants are responsible for congenital malformations in wild animals, the decline of sperm counts in men, and breast cancer in women. One of the sources of these pollutants is pesticide use. Americans use some two billion pounds of pesticides each year, and some pesticide residues stay in the food chain for decades. Although banned in the United States in 1972, DDT has an environmental half-life of about 100 years. Recent evidence has shown that DDT (dichloro-diphenyl-trichloroethane) and its chief metabolic by-product, DDE (which lacks one of the chlorine atoms), can act as estrogenic compounds, either by mimicking estrogen or by inhibiting the effectiveness of androgen. DDE is a more potent estrogen than DDT and is able to inhibit androgen-responsive transcription at doses comparable to those found in contaminated soil in the United States and other countries. DDT and DDE have been linked to such environmental problems as the decrease in the alligator populations in Florida, the feminization of fish in Lake Superior, the rise in breast cancers, and the worldwide decline in human sperm counts. Others have linked a pollutant spill in Florida's Lake Apopka (a discharge including DDT, DDE, and numerous other polychlorinated biphenyls) to a 90 percent decline in the birth rate of alligators and reduced penis size in the young males.

Dioxin, a by-product of the chemical processes used to make pesticides and paper products, has been linked to reproductive anomalies in male rats. The male offspring of rats exposed to this planar, lipophilic molecule when pregnant have reduced sperm counts, smaller testes, and fewer male-specific sexual behaviors. Fish embryos seem particularly susceptible to dioxin and related compounds, and it has been speculated that the amount of these compounds in the Great Lakes during the 1940s was so high that none of the lake trout hatched there during that time survived.

Some estrogenic compounds may be in the food we eat and in the wrapping that surrounds them, for some of the chemicals used to set plastics have been found to be estrogenic. The discovery of the estrogenic effect of plastic stabilizers was made in an unexpected way. Investigators at Tufts University Medical School had been studying estrogen-responsive tumor cells. These cells require estrogen in order to proliferate. The studies were going well until 1987, when the experiments suddenly went awry. That is, the control cells began to show high growth rates, suggesting stimulation comparable to that of the estrogen-treated cells. Thus it was if someone had contaminated the medium by adding estrogen to it. What was the source of contamination? After spending four months testing all the components of their experimental system, the researchers discovered that the source of estrogen was the plastic tubes that held their water and serum.

TIPS ON AVOIDING HORMONE DISRUPTORS

Many people, especially concerned parents, do not know where to turn to deal with fears of exposure to these chemicals. If the situation is severe enough they may be able to find some medical expertise in this area. In terms of what people themselves can do, there are some basic commonsense steps. To help prevent hormonal disruption, here are some steps some have recommended:

1. Do not use conventional chemical cleaners or pesticides of any type because many contain chlorinated chemicals and other persistent organic pollutants (POPs).
2. Do not consume food that is processed, and eat organic food.
3. Wash all conventional produce well before you prepare it to clean off any pesticide residues, preservatives, or waxes. Wash your hands afterwards because pesticide residues on the skins of produce are easily transferred from the fruit to your hands.
4. Do not heat food in any type of plastic container. Many plastics contain hormone-disrupting chemicals that affect food, especially when heated. Microwave foods in glass or ceramic containers.
5. Avoid fish and shellfish from waters suspected of being polluted. Hormone-disrupting chemicals generally accumulate in animals' fatty tissues and expose people when those animal products are ingested. Some parts of a fish may have very high concentrations of mercury, for example. Cultures that eat the whole fish and fish for subsistence are particularly exposed. Most health risk assessments of food levels that are safe for consumption are based on eating the fillets of fish.
6. Reduce consumption of high-fat dairy products and other high-fat foods like meat (especially beef). Many hormone-disrupting chemicals, including dioxins, accumulate in animal fatty tissues. Some milk is tainted with a dairy growth hormone, which is not currently labeled.
7. Choose unbleached or non-chlorine-bleached paper products. Chlorine bleaching is a major source of dioxin, a particularly toxic POPs. Bleached paper, including coffee filters, can pass its dioxin residues into the food with which it comes in contact.
8. Women should use non-chlorine-bleached, all-cotton tampons. Most tampons are made from rayon, a wood pulp product bleached with chlorine. Scientists have detected dioxins in these products.

Some individuals have very sensitive endocrine systems and can tolerate very little chemical exposure. They claim that their immune systems start breaking down and they become progressively sicker if left exposed to many common chemicals. These individuals must take further precautions by moving to the areas with the cleanest air. All their water is purified and all their food is organic, and even some of that may be limited. Carpets, glues, curtains, drapes, and clothing are all limited. The material must be organic, without any chlorine-based processing. The items must be produced, stored, and shipped in a pesticide-free environment, which is difficult to do. Combustion engines, as in cars, are not allowed because of the chemicals in their emissions and maintenance. Soaps and other toiletries must all be organic and can be limited.

The company that made the tubes refused to tell the investigators about its new process for stabilizing the polystyrene plastic, so the scientists had to discover it for themselves. The culprit turned out to be p-nonylphenol, a chemical that is also used to harden the plastic of the plumbing tubes that bring us water and to stabilize the polystyrene plastics that hold water, milk, orange juice, and other common liquid food products. This compound is also the degradation product of detergents, household cleaners, and contraceptive creams. A related compound, 4-tert-pentylphenol, has a potent estrogenic effect on cultured human cells and can cause male carp (*Cyprinus carpis*) to develop oviducts, ovarian tissue, and oocytes.

Some other environmental estrogens are polychlorinated biphenyls (mentioned earlier). These PCBs can react with a number of different steroid receptors. PCBs were widely used as refrigerants before they were banned in the 1970s, when they were shown to cause cancer in rats. They remain in the food chain, however (in both water and sediments), and have been blamed for the widespread decline in the reproductive capacities of otters, seals, mink, and fish. Some PCBs resemble diethylstilbesterol (DES) in shape, and they may affect the estrogen receptor as DES does, perhaps by binding to another site on the estrogen receptor. Another organochlorine compound (and an ingredient in many pesticides) is methoxychlor. This can severely inhibit frogs' fertility, and it may be a component of the worldwide decline in amphibian populations.

Some scientists, however, say that these claims are exaggerated. Tests on mice have shown that litter size, sperm concentration, and development were not affected by concentrations of environmental estrogens. However, recent work has shown a remarkable genetic difference in the sensitivity to estrogen among different strains of mice. The strain that had been used for testing environmental estrogens, the CD-1 strain, is at least 16 times more resistant to endocrine disruption than the most sensitive strains, such as B6. When estrogen-containing pellets were implanted beneath the skin of young male CD-1 mice, very little happened. However, when the same pellets were placed beneath the skin of B6 mice, their testes shrank and the number of sperm seen in the seminiferous tubules dropped dramatically. This wide range of sensitivities has important consequences for determining safety limits for humans. This is sometimes known as the variance in the dose response to a given chemical.

Environmental Thyroid Hormone Disruptors

The structure of some PCBs resembles that of thyroid hormones, and exposure to them alters serum thyroid hormone levels in humans. Hydroxylated PCB was found to have high affinities for the thyroid hormone serum transport protein transthyretin, and it can block thyroxine from binding to this protein. This leads to the elevated excretion of the thyroid hormones. Thyroid hormones are critical for the growth of the cochlea of the inner ear, and rats whose mothers were exposed to PCBs had poorly developed cochleas and hearing defects.

Deformed Frogs: Pesticides Mimicking Retinoic Acid?

Throughout the United States and southern Canada there is a dramatic increase in the number of deformed frogs and salamanders in what seem to be pristine woodland ponds. These deformities include extra or missing limbs, missing or misplaced eyes, deformed jaws, and malformed hearts and guts. There is speculation that pesticides (sprayed for mosquito and tick control) might be activating or interfering with the retinoic acid pathway. The spectrum of abnormalities seen in these frogs resembles the malformations caused by exposing tadpoles to retinoic acid.

Chains of Causation

Whether in law or science, establishing chains of causation is a demanding and necessary task. In developmental toxicology, numerous endpoints must be checked, and many different levels of causation have to be established. For instance, one could ask if the pollutant spill in Lake Apopka was responsible for the feminization of male alligators. To establish this, one has to ask how the chemicals in the spill might contribute to reproductive anomalies in male alligators and what would be the consequences of that happening. After observing that the population level of the alligators had declined, unusually high levels of estrogens in the female alligators, unusually low levels of testosterone in the males, and a decrease in the number of births among the alligators were reported. On the tissue and organ level, the decline in birth rate can be explained by the elevated production of estrogens from the juvenile testes, the malformation of the testes and penis, and the changes in enzyme activity in the female gonads. On the cellular level, one sees ovarian abnormalities that correlate with unusually elevated estrogen levels. These cellular changes, in turn, can be explained at the molecular level by the finding that many of the components of the pollutant spill bind to the alligators' estrogen and progesterone receptors and that they are able to circumvent the cell's usual defenses against overproduction of steroid hormones.

Human Impacts

It is a matter of debate now as to how to prove the effects of environmental compounds on humans. Scientists claim that genetic variation in the human species, the lack of controlled experiments to determine the effect of any particular compound on humans, and a large range of other multiple intervening factors make any causality difficult to prove. Evidence from animal studies suggests that humans and natural animal populations are at risk from these endocrine disruptors. It may be that the damage is greater than thought because most risk assessments do not compute cumulative effects. Because of the many exposure vectors of chemicals, the cumulative impacts and risks could be far greater and have far-reaching effects on many people.

Conclusion

As chemical emissions accumulate in the environment and bioaccumulate in humans, more controversy will ensue. Loss of fertility, cancer, and other health issues may not be worth the price of increased profits for industries that use or manufacture these chemicals. As more of these chemicals are used and more of their effects become known, this controversy will escalate.

See also **Children and Cancer; Food Safety; Industrial Agricultural Practices and the Environment; Industrial Feeding Operations for Animals; Pesticides**

Further Reading

Guillette, L. J., and D. Andrew Crain, *Environmental Endocrine Disruptors: An Evolutionary Perspective.* New York: Taylor and Francis, 2000.

Hester, R. E., and Roy M. Harrison, *Endocrine Disrupting Chemicals.* London: Royal Society of Chemists, 1999.

Norris, David O., and James A. Carr, *Endocrine Disruption: Biological Basis for Health Effects in Wildlife and Humans.* New York: Oxford University Press, 2006.

Scott, F. Gilbert, and David Epel, *Ecological Developmental Biology.* Sunderland, MA: Sinauer Associates, 2009.

Wittcoff, Harold A., Jeffery S. Plotkin, and Bryan G. Reuben, *Industrial Organic Chemicals.* Hoboken, NJ: Wiley, 2004.

HUMAN GENOME PROJECT

Edward White

The Human Genome Project was an international scientific effort, coordinated by the U.S. National Institutes of Health and the U.S. Department of Energy in 1990, to decode the string of tens of thousands of genes, which are made up of about three billion pieces of deoxyribonucleic acid (DNA) and help find out what they do. In 2003, project scientists announced that they had successfully mapped the entire human genome, two years earlier than expected.

Scientists saw the discovery as starting a golden age of biomedical science that might be able to cure human diseases, extend human life, and allow humans to reach much more of their full genetic potential than ever before. It was reasoned that simply understanding why the human organism works the way it does might help people to understand who and what they are at a fundamental level.

Critics, however, worried about a future in which "designer" people would be purposely created with genetic alterations that would never have naturally occurred. They saw grave dangers in genetic knowledge being used to deny people with potential

problems everything from medical insurance to jobs, thus affecting even their ability to survive. They were concerned that new abilities to understand and alter human genes would allow the wealthy and influential to give themselves and their children advantages over poorer and less influential people who could not afford to pay for the manipulation of their genetic makeup.

Questions include the following: Could genetic engineering generate a new basis for a class system, with "supergeniacs" attaining an enduring supremacy over weaker and poorer people? Could wealthy and influential people customize their children's genetic structure to give them advantages over less privileged people? Would these new abilities, if not made equally available, exacerbate the social inequalities that already exist?

Pros and Cons

One possible gain from decoding the human genome is that knowledge about which genes or combinations of genes can cause certain physical diseases, deformations, or other problems; this would allow scientists to produce tests revealing whether individuals have the potential to develop an illness or disability. Many genetic predispositions merely *suggest* that an individual might develop a condition: the finding is not definite or conclusive. Knowledge that an individual has a particular gene or set of genes could offer a heads-up on anemia, multiple sclerosis, or diabetes; yet like diabetes, a person can carry the gene without developing the disease. Similarly, a person might be genetically predisposed to alcoholism but never become an alcoholic. The selling point for the project in part was that it would lead to the reduction of health care costs by nabbing potential conditions before they developed, much like murder was handled in the movie *Minority Report.*

Researchers seek to somehow remove the problem component by replacing it or "turning it off." The purposeful manipulation of human genes to eliminate or minimize the effects of "bad" genes or DNA is called *gene therapy.* Early attempts at using gene therapy to improve human situations have been disappointing, but scientists remain optimistic.

Scientists in 2009 had begun mapping genetic sequences of entire families to study disease and other maladies. As of this writing (mid-2010), scientists were using the human genome to make ancestral connections not only within families but also with Neanderthals, for example. In 2009, *Genetic Engineering & Biotechnology News* reported researchers who sequenced an entire immediate family discovered that parents pass along fewer "genetic mutations" to their children than previously thought. The children were born with two extremely rare conditions: Miller's syndrome and primary ciliary dyskinesia. Scientists were given permission to compare variants in the children's DNA sequences with the Human Genome Project's research. The result confirmed an earlier study that identified four "candidate" gene mutations for causing each disorder.

Certainly some scientists will use the human genome to develop new therapies, drugs, and treatments for human diseases. But what if an insurance company required all applicants for medical or life insurance to submit to a genetic test? The test would reveal potential genetically based diseases or disorders. Would health insurers charge people more or less depending on their predispositions at the time of birth? Or would they simply decline to insure the child? Would this create a class of citizens who could not obtain insurance, not because they actually had a condition but because they might develop one in the future? Could employers, some of whom offer medical insurance coverage, demand such tests and refuse to hire people with potential problems?

Officials elected to the U.S. Congress have introduced legislation attempting to give employees rights in this matter and balance them with those of employers and insurance companies. Around the world, legislators have wrestled with the issue of how to protect rights to employment, insurance, and privacy in an age in which knowledge of someone's genetic makeup can say much about their possible future.

Conclusion

The human genetic code does not yet provide the ability to create Robocop-type or Cylon-like human-machine hybrids. There is no evidence that Data, the peaceful and searching character of the television program Star Trek, will not be developed *before* hybrid military robots. Legislators in the United States are keeping watch on genomics and related ethical considerations. The basic list of genes and their components elucidated by the Human Genome Project is now available to enhance or detract from life as we know it today.

See also **Cloning; Eugenics; Genetic Engineering**

Further Reading

Batra, Karen, "National Academy of Sciences Says Genetic Engineering Could Save Florida's Oranges." *Biotechnology Industry Organization* (March 26, 2010).

Genetic Engineering & Biotechnology News, http://www.genengnews.com

Hubbard, Ruth, and Elijh Wald. *Exploding the Gene Myth: How Genetic Information Is Produced and Manipulated by Scientists, Physicians, Employers, Insurance Companies, Educators, and Law Enforcers.* Boston: Beacon Press, 1999.

Human Genome Project, http://genome.gsc.riken.go.jp/hgmis/project/hgp.html/

Lewontin, R. C., Steven Rose, and Leon J. Kamin, *Not in Our Genes: Biology, Ideology, and Human Nature.* New York: Pantheon, 1984.

Moore, David S., *The Dependent Gene: The Fallacy of "Nature vs. Nurture."* New York: Henry Holt, 2002.

National Academies, "Destructive Citrus Greening Disease Affecting Florida Could Be Combated with Bacteria-Resistant Trees, Early Detection, Coordinated Efforts, Says Report." March 23, 2010a. http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12880/

National Academies, "Strategic Planning for the Florida Citrus Industry: Addressing Citrus Greening Disease." National Research Council of the National Academies Board on Agriculture and National Resources Division on Earth and Life Studies. National Academies Press: Washington, DC, 2010b, http://www.nap.edu/catalog.php?record_id=12880

Ridley, Matt. *Nature via Nurture: Genes, Experience, & What Makes Us Human.* New York: HarperCollins, 2003.

Simeonidis, Simos. "Biotech Financing Overview and Trends from Last Year's Fourth Quarter." *Genetic Engineering & Biotechnology News.* January 19, 2010. http://tinyurl.com/288c8mc

Stober, Spencer S., and Donna Yarri, *God, Science, and Designer Genes: An Exploration of Emerging Genetic Technologies.* Westport, CT: Praeger, 2009.

I

INCINERATION AND RESOURCE RECOVERY

Robert William Collin

Burning waste for energy purposes is controversial because it may increase the toxicity of the emissions in the form of ash. This is waste that would otherwise go to full U.S. landfills. Many incineration corporations have claimed they were making energy to get status as a utility. At that time utilities were exempt from the right-to-know laws.

Incineration: More Than Just Burning the Trash

Burning the trash is an old custom in many rural areas of the United States. Even today, the EPA estimates that the burning of private residential trash is a major source of pollution in the upper Midwest. Historically, burning trash and waste was an improvement over leaving it around or just placing it in heaps. Burning the trash reduced its volume and risk. Waste can be a vector for many public health risks, and it can attract vermin. Rats, mice, and other rodents can become vectors for diseases such as bubonic plague and spread the risk of deadly disease deep into human populations. Waste can also be fuel and shelter. U.S. pioneers in the Midwest used buffalo chips (waste) to build sod houses. Dried, this waste could be burned for fuel and heat. This type of waste was the main type of waste, as opposed to today's chemically enriched, multisubstance, potentially toxic waste stream.

An estimated 14 to 16 percent of the U.S. waste stream is incinerated. It could be more because many industrial and military wastes are incinerated as well. Generally, waste is delivered to the incinerator. The movement of waste itself is peppered with controversies.

The waste may have come from long distances, from cities and waste transfer stations. As U.S. environmental consciousness has increased, more people have become interested in where their waste goes and what environmental impact it has. Waste transfer stations can become a local land-use issues and sometimes an environmental justice issue. When landfills become full, waste must wait in waste transfer stations. The waste can be hazardous. Many communities fear that the transfer station will become a permanent waste site, as some in fact have. The waste is delivered by truck, ship, and railroad. Sometimes there are spills of hazardous wastes, with severe environmental and community repercussions. Environmental justice communities may have an overconcentration of poorly regulated waste transfer sites. These sites are where many spills occur. When energy is to be used from the incineration, the waste is taken to an energy recovery facility, where it is burned in combustion chambers or boilers. High combustion temperatures can help most of the waste burn thoroughly. This is one goal of incineration—less ash for disposal. Environmentalists are very concerned with air emissions from incinerators. These facilities have large emissions that can accumulate quickly around the site as heavier particulate matter such as metals falls to the ground. Metals are difficult to burn completely. Much of what the incinerators put out reflects what is put into them. Waste stream control is difficult at best, although improvements in recycling have benefited other waste streams. Older, pre-1970 incinerators burned everything they could fit into them. Parts of older buildings painted with lead paint are still burned as hazardous waste. The lead does not burn and drops down as particulate matter, creating a risk of toxicity, as it did in Flint, Michigan. Combustible, explosive, illegal, and other dangerous materials inhabit the waste stream. Evidence of a crime or environmental impact that is burned is usually less recognizable than when placed in a landfill. Medical wastes can include all sorts of waste, including trace amounts of radioactive material. Many older municipal incinerators in the southeastern United States were placed in African American communities, exposing generations to heavy metals such as lead, mercury, and cadmium for decades. Issues such as this surround the movement of waste generally and incineration of it specifically. Industry claims that modern air pollution control devices include electrostatic precipitators, dry and wet scrubbers, and/or fabric; and that these get out everything dangerous. Cumulative emissions are not measured, although their human and environmental impacts can be large.

Current Waste Management in the United States

To say that waste is managed is an overstatement. The main characteristic of U.S. waste trends is the massive increase in volume. Enormous progress in regulating the waste stream is a primary characteristic of the U.S. waste management approach. Federal government financing of the expensive infrastructure, sometimes inclusive of modern pollution-control and abatement technologies, made it possible for local governments to treat solid wastes. The waste stream of the 2000s is very different from that of

50 years ago. It contains inorganic materials that can create risks for people and for the environment. This has increased the overall controversy of siting and permit renewals for incinerator facilities. It has also moved the debate into the courts. Recently, incinerators in the African American community of urban north Florida from the 1920s until the 1970s provided the basis for a successful $76 million tort settlement for wrongful deaths and other environmental impacts. The plaintiffs are quick to point out that money does not replace lost lives of loved ones. These bitter victories only increase the rancor of this controversy.

The Benefits of Resource Recovery through Incineration

Industry claims that by burning the solid wastes into ash, incineration reduces the volume of waste entering the landfill by approximately 90 percent. Recovering some of the energy from burning waste can produce electricity. This can help offset any potential cost

ENERGY VALUE OF PLASTICS, MUNICIPAL SOLID WASTES, AND NATURAL RESOURCES

Plastic Material Energy Value

When material is incinerated, it gives off different levels of energy useful in resource recovery. Emissions from burning these materials, their amount, their toxicity, and the remaining ash are not considered.

Polyethylene terephthalate 9,000–9,700
Polyethylene 19,900
Polyvinyl chloride 7,500–9,000
Polypropylene 18,500–19,500
Polystyrene 17,800

Municipal Solid Waste Material Energy Value

Newspaper 8,000
Textiles 6,900
Wood 6,700
Yard wastes 3,000
Food wastes 2,600
Average for municipal solid waste 4,500

Natural Resources Energy Value

Fuel oil 20,900
Wyoming coal 9,600

Plastics are pervasive in U.S. society. They are used all over the world in agriculture in large amounts. Incineration of wastes such as plastic to create electrical energy could be sustainable depending on the environmental impacts of the ash and air emissions.

of environmental mitigation. Resource recovery by incineration of wastes is considered so efficient that old landfills are being opened up and that waste then incinerated for its energy potential.

Resource Recovery of Plastics

Plastics have a higher energy value and heat content than most municipal solid waste materials. While making up 7 percent of the waste stream by weight and 20 percent by volume, plastics provide incinerators with 25 percent of the recoverable energy from municipal solid wastes. A pound of polyethylene supplies 19,000 British thermal units (Btu), but corrugated paper packaging provides only 7,000 Btu. The incineration of plastics produces more energy.

Another major issue around the incineration of plastics is the environmental impacts of the emissions. Many plastics contain heavy metals such as lead and cadmium, which can increase the toxicity of the incinerator ashes, thus causing the ashes to be hazardous wastes. If they are emitted into the air, they may fall as particulate matter on nearby land and waterways. Currently, incinerator ashes are not categorized as hazardous wastes and can usually be disposed of in landfills. In some communities this can be a significant issue. When that happens, this ash can back up in waste transfer stations. The waste transfer stations are not designed or sited as terminal places for waste of any kind, much less hazardous waste. A small incineration plant processes approximately 300 tons of waste each day, while a large plant can process about 3,000 tons.

Incinerators can produce enough energy to run an industrial facility or a small community, depending on volume and kind of waste stream.

Waste-to-Energy Facilities and Their Operations

The cost of building a waste-to-energy incinerator is very high. The volume of truck traffic will increase. Depending on the facility's permit to operate, it may not be approved to accept all wastes. Trucks delivering wastes are required to display signs that indicate the hazards of their waste loads. Economically, resource-recovery incinerators need a reliable, steady stream of high-energy waste or else processing the waste material will cost more energy than it produces.

Conclusion

Incineration is a waste treatment method sanctioned by the government because research is inadequate to prove it unsafe. This lack of science allows potentially dangerous emissions to enter the environment and communities. The effect of the quantity and types of pesticides in the incineration process has yet to be determined and may present an unaccounted exposure vector to nearby populations and environments. Many communities feel that the burden should be on industry to prove that an emission is safe

INCINERATION AS A METHOD FOR RESOURCE RECOVERY FROM INEDIBLE BIOMASS IN A CONTROLLED ECOLOGICAL LIFE-SUPPORT SYSTEM

In research published by the NASA Ames Research Center, Advanced Life Support Division, Regenerative Systems Branch, Moffett Field, California, waste recovery is serious business.

Resource recovery from waste streams in a space habitat is essential to minimize the resupply burden and achieve self-sufficiency. In a controlled ecological life-support system (CELSS), human wastes and inedible biomass will represent significant sources of secondary raw materials necessary to support of crop plant production (carbon, water, and inorganic plant nutrients). Incineration, pyrolysis, and water extraction have been investigated as candidate processes for recovery of these important resources from inedible biomass in a CELSS. During incineration, carbon dioxide is produced by oxidation of the organic components, and this product can be directly utilized by plants. Water is concomitantly produced, requiring only a phase change for recovery. Recovery of inorganics is more difficult, requiring solubilization of the incinerator ash. The process of incineration followed by water solubilization of ash resulted in the loss of 35 percent of the inorganics originally present in the biomass. Losses were attributed to volatilization (8 percent) and non–water-soluble ash (27 percent). All of the ash remaining following incineration could be solubilized with acid, with losses resulting from volatilization only. The recovery for individual elements varied. Elemental retention in the ash ranged from 100 percent of that present in the biomass for Ca, P, Mg, Na, and Si to 10 percent for Zn. The greatest water solubility was observed for potassium, with recovery of approximately 77 percent of that present in the straw. Potassium represented 80 percent of the inorganic constituents in the wheat straw and, because of slightly greater solubility, made up 86 percent of the water-soluble ash. Following incineration of inedible biomass from wheat, 65 percent of the inorganics originally present in the straw were recovered by water solubilization and 92 percent by acid solubilization. Recovery of resources is more complex for pyrolysis and water extraction. Recovery of carbon, a resource of greater mass than the inorganic component of biomass, is more difficult following pyrolysis and water extraction of biomass. In both cases, additional processors would be required to provide products equivalent to those resulting from incineration alone. The carbon, water, and inorganic resources of inedible biomass are effectively separated and, through incineration, output in usable forms results.

before it is allowed. Currently the burden is on those harmed to prove it is unsafe to a scientific level of certainty, which is quite high. This controversy reopens a more basic question of whether science should control policy. If the scientific methods are underfunded, slow, and not accessible, then environmental policy stagnates. However, political pressure often forces the government to develop new, controversial policies without waiting for the science to catch up. Incineration as an environmental practice by itself may be limited as environmental policy expands to include concepts of sustainability.

However, because it uses the energy from waste and diverts waste from landfills, resource recovery from incineration may see new applications. The larger question is what to do with all the waste, how to stop the generation of waste, and how to clean up the waste already here. Controversies will follow each of these questions.

See also **Air Pollution; Waste Management**

Further Reading

Dhir, Ravindra, Thomas D. Dyer, and Kevin A. Paine, eds., *Sustainable Construction: Use of Incinerator Ash.* London: Thomas Telford, 2000.

Hamerton, Azapagic, Adisa Azapagic, and Alan Emsley, eds., *Polymers: The Environment and Sustainable Development.* Hoboken, NJ: Wiley, 2003.

Holly, Hattemer-Frey, et al., eds., *Health Effects of Municipal Waste Incineration.* Boca Raton, FL: CRC Press, 1991.

Niessen, Walter R., *Combustion and Incineration Processes: Applications in Environmental Engineering.* New York: Marcel Dekker, 2002.

Shevory, Thomas C., *Toxic Burn: The Grassroots Struggle against the WTI Incinerator.* Minneapolis: University of Minnesota Press, 2007.

INDUSTRIAL AGRICULTURAL PRACTICES AND THE ENVIRONMENT

Robert William Collin

Industrial agricultural practices can have large impacts on the environment and entire ecosystem. Environmentalists, small family farmers, downstream communities, and environmental justice communities object to these impacts.

E. COLI IN FOOD AS A RESULT OF INDUSTRIAL AGRICULTURAL PRACTICES?

E. coli is everywhere in the environment. Some strains can be deadly. At the Lane County Fair in Eugene, Oregon, about 140 children contracted a severe strain of *E. coli.* All the children survived, but some were hospitalized for an extended period. All of them now have that strain within them. The cause of this contact was the failure of children to wash their hands after petting the goats and sheep.

Another recent concern is that some strains of *E. coli* could be the result of agricultural industrial practices. This organism has been found in the soil and vegetables from Californian's Central Valley. As these farms are not rigorously regulated for such risks, there is much controversy about who is to blame.

Historically, humans as hunter-gatherers would hunt in an area and then move on. Over time, a human community would settle in a given location and turn to farming. When the game was gone and the soil infertile, the community would move to another location. Human population was so small then, and the environmental impacts of the technology so low, that this allowed the used-up region to regenerate. This method was sustainable only as long as there were new places to move to and environmental impacts remained within the period of time necessary for the regeneration of natural systems. This method was used by European colonial powers all around the planet. In the United States, this method was used by European farmers who moved to the New World. Many European settlers to North America felt a manifest destiny to colonize the continent from coast to coast.

Industrialized Agriculture

Industrialized agriculture can have several meanings. It can mean substituting machines for people in the food production process, increasing the scale of production beyond the regenerative capacity of the land, and using chemicals instead of natural organic materials. In the case of chemicals, when farmers discovered that certain chemicals can replace the older way of fertilizing, they realized that they could save time. The old process of fertilizing was called manuring. It took a large amount of time. Farmers in search of higher productivity industrialized in order to compete on world markets. They used more machines, increased the scale of production, and relied on technology for time-saving efficiency in food production and preparation. Unfortunately, these machines can emit environmentally damaging pollutants, the land can give out, and the chemicals can create public health risks. Each category of industrialization of agriculture is an issue within this controversy and is of concern to environmentalists and others because of its potential environmental impacts and human health risks.

The contours of this controversy are shaped by rapidly developing technology that thrives on large-scale applications and a growing scientific consensus and mobilization of community concern about health risks.

Mainstream agriculture faces enormous controversies and dynamic changes driven in part by environmental issues. The debate around this controversy is affected by the following changing conditions.

- Climate change will have a major impact on agricultural practices in many areas.
- Agriculture will have to find alternative energy sources to sustain productivity because of its current high reliance on nonrenewable energy.
- Environmental waste sinks are increasing in size. The hypoxic zone in the Gulf of Mexico increased to 8,200 square miles in 2002. Most scientists attribute this to runoff from agricultural activities all along the Mississippi River watershed. The same is true for most coastal outlets in industrialized nations.

ANATOMY OF CENTERS FOR DISEASE CONTROL (CDC) RESPONSE TO *E. COLI*

On Friday, September 8, 2006, Centers for Disease Control (CDC) officials were alerted by epidemiologists in Wisconsin of a small cluster of *E. coli* serotype O157:H7 infections of unknown source. Wisconsin also posted the DNA fingerprint pattern of the cluster to PulseNet, thus alerting the entire network. Separately, the state health department of Oregon also noted a very small cluster of infections that day and began interviewing the cases. On September 13, both Wisconsin and Oregon reported to the CDC that initial interviews suggested that eating fresh spinach was commonly reported by cases in both clusters of *E. coli* serotype O157:H7 infections in those states. PulseNet showed that the patterns in the two clusters were identical, and other states reported cases with the same PulseNet pattern among ill persons who also had eaten fresh spinach. The CDC notified the U.S. Food and Drug Administration (FDA) about the Wisconsin and Oregon cases and the possible link with bagged fresh spinach. The CDC and FDA convened a conference call on September 14 to discuss the outbreak with the states.

Quick sharing of information among the states, CDC, and FDA led to the FDA warning the public on September 14, 2006, not to eat fresh bagged spinach. On September 15, the number of reported cases approached 100. Cases were identified by PulseNet and interviewed in detail by members of OutbreakNet. Leftover spinach was cultured at the CDC, FDA, and in state public health laboratories. The epidemiological investigation indicated that the outbreak stemmed from a single plant on a single day during a single shift.

Coordination with the FDA was important for investigating this outbreak. Frequent conference calls relayed the data on spinach purchases and sources to the FDA, guiding the ongoing investigation of production sites of possible interest.

Between August 1 and October 6, a total of 199 persons infected with the outbreak strain of *E. coli* O157:H7 were reported to the CDC from 26 states. Among the ill persons, 102 were hospitalized, 31 had developed hemolytic-uremic syndrome (risking kidney failure), and 3 died. Eighty-five percent of patients reported illness onset from August 19 to September 5. Among the 130 patients from whom a food consumption history was collected, 123 (95%) reported consuming uncooked fresh spinach during the 10 days before illness onset. In addition, *E. coli* O157:H7 with the same DNA matching the tainted strain was isolated from 11 open packages of fresh spinach that had been partially consumed by patients.

This outbreak strain of *E. coli* O157:H7 is one of 3,520 different *E. coli* O157:H7 patterns reported to CDC's PulseNet since 1996. Infections with this strain have been reported sporadically to CDC's PulseNet since 2003, at an average of 21 cases per year from 2003 to 2005. This finding suggests that this strain has been present in the environment and food supply occasionally, although it had not been associated with a recognized outbreak in the past.

(*continued*)

(*continued*)

Parallel laboratory and epidemiological investigations were crucial in identifying the source of this outbreak. Rapid collection of standard case exposure information by epidemiologists in affected states led to rapid identification of the suspected food source and public health alerts.

Sustainable Agriculture

Sustainable agriculture is defined as the ability to maintain productivity of the land. In general terms, sustainable agriculture includes the following principles. It must be

- Ecologically restorative
- Socially resilient
- Economically viable

This shifts the emphasis from managing resources to managing ourselves. Agricultural corporations and associated trade groups view this as increased governmental intrusion and do not embrace these ideals in their entirety.

The small farmer is a part of the settlement of the United States. Many laws were written to protect the small family farmer. Currently, many of these laws are used by agribusiness. Some environmentalists think they do so to hide environmental impacts. It has been very difficult to get right-to-know legislation passed in agricultural areas in agricultural states. Agribusiness resists the increased reporting requirements because of the added cost and decreased profitability, especially in regard to pesticides.

Conclusion

The farmer and the cowboy are classical figures in U.S. history and culture. However, they do not fit well with modern industrialization of agriculture. Modern agribusiness is a group of large, powerful corporations and banks. One issue in this controversy is the cultural clash of old and traditional cultures with new ways of producing food.

The industrialization of agricultural practices is not new. Agricultural research at U.S. land grant colleges and universities helped to create the green revolution, which modernized many agricultural practices and pushed them into greater productivity. Now some of the long-term results are more evident. Many people were fed, but some of the long-term consequences may pose risks to public health and the environment. These practices may also not be sustainable, especially with rapid climate change and urban population increases. This entire issue is an emerging political battleground. The technological modernization of food production is continuing. Food can now be produced without soil. Although such techniques still remain at the research stage, their implications for food production are enormous. Food production would no longer have to be tied to the land. These new changes in

WHAT IS *E. COLI?*

E. coli is the abbreviated name of the bacterium in the family Enterobacteriaceae named *Escherichia* (genus) *coli* (species). Approximately 0.1 percent of the total bacteria within an adult's intestines (on a Western diet) is represented by *E. coli,* although in a newborn infant's intestines *E. coli,* along with lactobacilli and enterococci, represent the most abundant bacterial flora. The presence of *E. coli* and other kinds of bacteria within our intestines is necessary for us to develop and operate properly and remain healthy. The fetus of an animal is completely sterile. Immediately after birth, however, the newborn acquires all kinds of different bacteria that live symbiotically with the newborn and throughout the individual's life. A rare strain of *E. coli* is *E. coli* O157:H7, a member of the enterohemorrhagic *E. coli* (EHEC) group. *Enterohemorrhagic* means that this organism causes internal bleeding.

This strain of *E. coli* and all of its progeny produce a toxin. The toxin is a protein that causes severe damage to the cells of the intestinal wall. If this condition is left untreated, internal bleeding occurs, potentially leading to complications and death.

technology will also be highly controversial, opening new environmental possibilities for former farmland.

See also **Food Safety; Genetically Modified Organisms; Industrial Feeding Operations for Animals; Pesticides; Sustainability (vol. 1)**

Further Reading

Anderson, J. L., *Industrializing the Corn Belt: Agriculture, Technology, and Environment, 1945–1972.* DeKalb: Northern Illinois University Press, 2008.

Bellamy, John Foster, Frederick Butell, and Fred Magdoff, *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment.* New York: Monthly Review Press, 2000.

Gliessman, Stephen R., *Agroecology: The Ecology of Sustainable Food Systems,* 2d ed. Boca Raton, FL: CRC Press, 2006.

Jansen, Kees, and Sietze Velleme, *Agribusiness and Society: Corporate Responses to Environmentalism, Market Opportunities, and Public Regulation.* London: Zed Books, 2004.

Kimbrell, Andrew, *Fatal Harvest: The Tragedy of Industrial Agriculture.* Sausalito, CA: Foundation for Deep Ecology, 2002.

Manno, Jack P., *Privileged Goods: Commoditization and Its Impact on Environment and Society.* Boca Raton, FL: CRC Press, 2000.

INDUSTRIAL FEEDING OPERATIONS FOR ANIMALS

Robert William Collin

Animal agriculture is switching to industrial practices to meet the needs of a growing world population and increase profits by replacing small to midsize animal farms with

large, industrial-scale animal feeding operations (AFOs) that maximize the number of livestock confined per acre of land. Confinement of large numbers of animals in such operations can result in large discharges of animal feed- and waste-related substances (animal residuals) to the environment. The implications of waste management practices at AFOs for ecosystem viability and human health are very controversial. Potential effects of AFOs on the quality of surface water, groundwater, and air and on human health pose controversial issues.

Cattle

Cattle, sheep, hogs, goats, and other animals have been raised for food all over the world for many years. Their environmental impacts are different based on the animal and the particular environment. Goats and hogs can have big impacts on ground cover and do long-term damage to sensitive ecotones such as mountains. Cattle take large amounts of grassland to grow to market maturation. Environmentalists often object to eating beef because the environmental footprint of cattle raising is so large. Some have argued that rain forest deforestation from slash-and-burn techniques is motivated by a desire to expand grazing ranges for cattle. Cattle production is big business. There are about 500,000 concentrated animal feeding operations (CAFOs), about 20,000 of which are regulated under the pollution laws. Three states—Texas, Kansas, and Nebraska—account for two-thirds of all feedlot production of beet cattle in the United States. Ranchers are important political constituencies in these states.

Cattle feedlot operations are financially dominated by large corporations. Industrial feeding operations have refined the process of raising calves to slaughter-ready weight with industrial production methods. These focus on cost-to-profit measures and often prioritize size, weight gain, and time to market.

Environmental Impacts

Large feedlot operations have provoked controversy in their communities, focused on the environmental damage caused by waste runoff and air pollution. Feedlot waste can be found in a watershed up to 300 miles away, depending on the hydrology of that particular watershed.

Lagoons are pools of water used to treat waste from animal feeding operations. They are an older, low-volume, low-cost form of waste treatment but require maintenance. Waste treatment lagoons are often poorly maintained. They have broken, failed, or overflowed. They are prone to natural disasters like floods and hurricanes. When they overflow or break, the waste enters the watershed. Often the waste mixes with high levels of nitrogen and phosphorus from agricultural runoff. This can have major environmental impacts.

CAFOS IN OREGON

EPA's Concentrated Animal Feeding Operation (CAFO) Enforcement: The Case of Oregon

With an estimated 1.5 million head of cattle in Oregon, dairy and beef operations produce at least 7.5 million tons of manure per year; this must be accounted for and kept out of Oregon's waters. Animal waste in water represents an environmental issue and a human health issue. For instance, animal waste is high in nutrients. When it enters a water body, oxygen can be depleted, preventing the breakdown of nutrients and undermining the survival of fish. Animal waste can also contain bacteria and viruses that are harmful to humans, including *E. coli* and *Salmonella.* Additionally, if cattle are allowed into streams, they can trample the streamside vegetation, which reduces shade cover and increases water temperature. It also increases erosion—that is, sediment deposition, which can severely affect the aquatic biota. A number of trout and salmon species found in Oregon are listed or have been proposed for listing as endangered species.

The Clean Water Act was enacted in 1972; however, some cases remain where CAFO owners have done little or nothing to keep animal waste from Oregon waters. CAFOs are defined as point sources under the National Pollutant Discharge Elimination system, and a discharge of animal waste to surface waters is illegal. These discharges often result from overflowing waste storage ponds, runoff from holding areas and concrete pads, or animals having direct access to surface waters. State and EPA regulators have made many efforts to educate the CAFO owners, yet violations persist. EPA's initial efforts began with dairies; they now include cattle feedlots as well as other CAFO operations—for example, hog farms, racetracks, and so on.

The direct involvement of the EPA in the regulation of CAFOs in Oregon is not new. In fact, the EPA has been involved in enforcing these regulations against dairy farms since 1994. The controversy that exists at this time is the result of the EPA's efforts to expand enforcement beyond the Oregon dairy industry to include beef cattle operations, which are a segment of the Oregon CAFO population that has received limited compliance inspections over the last several years, even though they have been subject to the regulations since 1972. In 2007, the EPA directed some attention toward feedlots in eastern Oregon.

The EPA's objectives in taking federal enforcement actions against CAFOs in Oregon are as follows:

- To reduce the environmental and public health threat.
- To level the playing field among CAFOs by eliminating the economic advantage that violators have enjoyed over those who have invested capital to comply with the law.
- To encourage compliance and deter others from violating the law through education and public notice of penalties, thus supporting local efforts.

(*continued*)

(*continued*)

- To encourage the state of Oregon to reassume its lead role in CAFO enforcement.
- To use the authority of the Clean Water Act as part of the salmon restoration efforts. The EPA is required by law to use this authority under Section 7(a)1 of the Endangered Species Act.

The EPA has been directly involved in the regulation of Oregon CAFOs since 1994. In that time, the EPA has been involved in several activities that have resulted in the education of CAFO owners. These activities include the following:

1. Fact sheets, describing the EPA CAFO requirements and enforcement strategy, mailed annually to producers, assistance providers (NRCS), and industry associations such as the Oregon Dairy Association and the Oregon Cattlemen's Association.
2. Public meetings to discuss EPA requirements and enforcement strategy. These meetings were held in 1999–2000 in Pendleton, LaGrande, Enterprise, Baker City, Portland, Tillamook, Boise, and Tri-cities that were attended by both producers and assistance providers.
3. Several meetings with assistance providers (e.g., local conservation districts) to discuss EPA requirements and enforcement strategy.
4. Public notice of EPA enforcement actions against CAFO operations in Region 10.

What Types of CAFO Operations Are Being Enforced Against?

The EPA is targeting the worst cases first. In the cases filed to date, enforcement actions have been undertaken against operations with confinement areas literally in the stream or where streams run directly through the confinement area with no attempt to keep manure out of the water and sites that have a direct discharge of waste to surface waters. Penalty assessments in Oregon have ranged from $11,000 to $50,000.

The EPA supports voluntary and community efforts to correct these problems, and EPA has supported many of these efforts with grant funds and people in the field. However, some recalcitrant operators remain who seem to need an incentive to do what others have done without having enforcement actions filed against them.

Lagoons and Public Health

One major battleground of industrial feeding operations is the surrounding community. Gases are emitted by lagoons, including ammonia (a toxic form of nitrogen), hydrogen sulfide, and methane. These are all greenhouse gases and pollutants. The gases formed in the process of treating animal waste are toxic and potentially explosive.

Water contaminated by animal manure contributes to human diseases, potentially causing acute gastroenteritis, fever, kidney failure, and even death. According to the Natural Resources Defense Council, nitrates seeping from lagoons have contaminated groundwater used for human drinking water. Nitrate levels above 10 milligrams per liter

in drinking water increase the risk of methemoglominemia, or blue baby syndrome, which can cause death in infants.

The Lagoons Harm Water Quality

There are also often cumulative effects from runoff within local watersheds because multiple large-scale feedlots cluster around slaughterhouses.

Watersheds far away are also affected by the atmospheric emission of gases from industrial feeding operations' lagoons, so that the environment is affected by both air and water pathways. Lagoons are often located close to water, which increases the potential of ecological damage. In many places, lagoons are permitted even where groundwater can be threatened. These communities have strong concerns, especially if they use well systems as many rural residents do. If water quantity is a local concern, then lagoons pose another battleground. The lagoon system depletes groundwater supplies by using large quantities of water to flush the manure into the lagoon. As water quantity decreases, pollutants and other chemicals become more concentrated. This decreases the quality of the remaining water dramatically.

The Hog Farm Controversy

One of the biggest controversies over animal feeding operations occurred in South Carolina. Legislation introduced to accommodate hog-farming and hog-butchering operations created some of the controversy. Introduced under the title of a Right to Farm bill, the legislation passed the State House of Representatives without close scrutiny. Controversy began to build during the fall, when it became clear that the legislation would deprive local governments of some power to control land use. National media stories of environmental problems with large-scale hog farms in North Carolina started to get public attention. Those interested in economic development saw large-scale hog operations as a possible substitute for tobacco. Many of the objections to bringing the hog industry into South Carolina have to do with environmental degradation. One factor in the South Carolina hog controversy was how much waste the waterways could absorb. South Carolina water pollution permits have limited availability for waste. They did not want to use that remaining water-pollution capacity for low-return economic development.

South Carolina's legislators decided that if they lost the hog industry, they would not lose many economic benefits, and if they kept it, it would be associated with difficult environmental problems that could hamper economic development over the long run.

EPA Attempts at Regulation

The U.S. Environmental Protection Agency (EPA) recognizes that AFOs pose a variety of threats to human health and the environment. According to the EPA, pollutants

from livestock operations include nutrients, organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, dust, and ammonia. In response to increasing community complaints and the industrialization of the livestock industry, the EPA developed water-quality regulations that affect AFOs directly and indirectly, and it is a running battle. The focus of these actions is on the control of nutrient leaching and runoff. The development of this new set of rules is a large battleground.

Concentrated animal feeding operations (CAFOs) are defined as point sources under the Clean Water Act. They are required to obtain a permit to discharge treated and untreated waste into water. Effluent guidelines establish the best available technology economically achievable for CAFOs over a certain size threshold. A threshold is the maximum amount of a chemical allowed without a permit. Thresholds pervade U.S. environmental policy and allow industries that self-report their thresholds to escape environmental scrutiny. A constant regulatory battleground is lowering the threshold to expand the reach of the regulations to include all those with environmental impacts. Many communities and environmentalists complain that the thresholds for water discharges from industrial feeding operations are much too high, thereby allowing risky discharges into water. Industry wants to remain unregulated as much as possible because it perceives these regulations as decreasing profitability. The battleground about effluent thresholds for CAFOs is a major one. The new permitting regulations address smaller CAFOs and describe additional requirements, such as monitoring and reporting.

How Do We Control the Environmental Impacts?

The proposed total maximum daily load (TMDL) regulations and the development of nutrient water-quality criteria will impact AFOs indirectly. States are required to develop TMDLs for water bodies that do not meet the standards for nutrients or other pollutants. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still meet water-quality standards. Through the TMDL process, pollutant loads will be allocated among all permit holders. Animal feedlot operations may have to be slowed down if there is no room for their waste in the water. AFO management practices will be more strictly scrutinized in any event, creating a battleground for enforcement of environmental protection rules. This controversy will include the TMDL controversy when it is implemented at that level.

Conclusion

Industrial feedlot operations provide an efficient means of meat production. Communities and environmentalists are very concerned about their environmental impacts. They want to know more about these operations and usually ask for records on effluent discharges,

monitoring systems for air and water, feed management, manure handling and storage, land application of manure, tillage, and riparian buffers. New federal regulations, growing population, community concern over environmental and public health impacts, and emerging environmental lawsuits are part of the battlefield for this controversy.

See also **Cumulative Emissions; Food Safety; Hormone Disruptors; Industrial Agricultural Practices and the Environment**

Further Reading

Clay, Jason W., *World Agriculture and the Environment: A Commodity-by-Commodity Guide to Impacts and Practices.* Washington, DC: Island Press, 2004.

Glasgow, Nina, et al., eds., *Critical Issues in Rural Health.* Ames, IA: Blackwell, 2004.

MacLachlan, Ian, *Kill and Chill: Restructuring Canada's Beef Commodity Chain.* Toronto: University of Toronto Press, 2001.

McNeely, Jeffrey A., and Sara J. Scherr, *Ecoagriculture: Strategies to Feed the World and Save Biodiversity.* Washington, DC: Island Press, 2003.

Pruden, Amy, and Laurence S. Shore, eds., *Hormones and Pharmaceuticals Generated by Concentrated Animal Feeding Operations.* New York: Springer-Verlag, 2009.

Spellman, Frank R., and Nancy E. Whiting, *Environmental Management of Concentrated Animal Feeding Operations (CAFOs).*Boca Raton, FL: CRC Press, 2007.

INFLUENZA

Jessica Lyons

The term *influenza* is derived from the Italian word for "influence" and dates from 1357. Italian astrologers of that time believed influenza was the result of the influence of celestial bodies. Influenza is commonly known today as the flu. It is an infectious disease that affects both birds and mammals. Influenza has been at the center of many debates between private and government scientists and within the government itself, and these debates have become an obstacle to medical scientists and physicians seeking to discover an effective treatment and vaccine.

There are many different strains of influenza, some more dangerous than others, but all are caused by an RNA virus from the Orthomyxoviridae family. Influenza is not a disease natural to humans; it is believed to have originated in birds and spread to humans during the last ice age. There are three types of influenza viruses, classified as A, B, and C. Type C rarely causes disease in humans, and type B causes illness but not epidemics. Only type A is capable of producing an epidemic or pandemic. Individuals suffering from seasonal influenza generally recover in two weeks, with 20,000 to 50,000 individuals dying of influenza viral infections annually within the United States.

The Great Influenza Pandemic of 1918–1919

Although influenza has been known for centuries, it became infamous during the Great Influenza Pandemic of 1918–1919, also known as the Spanish flu (type A, H1N1). Interestingly, it received the name Spanish flu simply because the Spanish newspapers were the first to report it, even though it had appeared in the United States months before. This strain of influenza was particularly lethal and is thought to have originated in Haskell County, Kansas. Although this influenza might have died out, the political state of the country at the time helped to spread it worldwide. America had just entered the Great War (1914–1918) and was preparing to ship thousands of soldiers to France. Before this could be done, the soldiers had to be trained. This training took place in cantonments throughout the country, with each cantonment holding tens of thousands of young men in cramped quarters, and influenza spread rapidly among the soldiers and support staff on the base. The movement of troops between U.S. bases, forts, and cantonments ensured that almost no American community went untouched by the disease.

Shipping men overseas helped to promote the spread of influenza throughout Europe and eventually the world, with cases appearing as far away as the Arctic and on remote islands in the South Pacific. Nearly all residents of Western Samoa contracted influenza, and 7,500 were killed—roughly 20 percent of the total population. As surgeon general of the army, William Gorgas was responsible for ensuring the effective and successful performance of military medicine. But although Gorgas was known internationally as an expert on public health, in reality he was given little authority by the U.S. government. Gorgas recommended that drafts be postponed and that the movement of soldiers between cantonments and overseas cease. President Wilson, however, continued to transfer soldiers from bases throughout the country and to ship them overseas, creating strained relations between the president and his military medical advisers.

Because the natural home of influenza is birds and because influenza can survive in pigs, the survival of humans is not necessary in order for influenza to survive. As a result, mortality rates in humans can reach extremely high numbers. Contemporary estimates suggest that 50 to 100 million individuals were killed worldwide during the Great Influenza Pandemic—2.5 to 5 percent of the world's population—and 65 percent of those infected in the United States died.

A second battle was being fought during the Great War, this one between the scientists and influenza itself. It was no mystery that disease followed war, and on the eve of the United States' entrance into this war, the military recruited the top medical minds in the United States. These included William Welch, founder of Johns Hopkins University; Victor Vaughan, dean of the Michigan medical school; Simon Flexner, Welch's protégé; Paul Lewis from Penn; Milton Rosenau from Harvard; and Eugene Opie at Washington University. Eventually the entire Rockefeller Institute was incorporated into the army as Army Auxiliary Laboratory Number One by Surgeon General of the

Army William Gorgas. As the pandemic raged on, scientists found themselves in a race against time. They worked night and day, at times around the clock, in an attempt to develop a treatment and a vaccine or antiserum for influenza. The risk was great, as more than one scientist was struck down by the disease itself.

The cause of influenza was not known at this time, and two camps emerged: those who believed influenza to be a virus and those who believed that the bacterium *B. influenzae* caused the disease. During this time a number of medical discoveries were made, such as a treatment for three different types of pneumonia. Unfortunately, no true progress toward creating an influenza vaccine was made until 1944, when Thomas Francis Jr. was able to develop a killed-virus vaccine. His work was expanded on by Frank MacFarlane Burnet, who, with U.S. Army support, created the first successful influenza vaccine.

The American Red Cross was another principal player. Given the tremendous number of both civilian and military deaths due to influenza and the cost of the war overseas, the government could not put together the necessary funds and personnel to care for matters on the home front. Assistance was needed, and when it became apparent that this influenza had reached the scale of a pandemic, the Red Cross created the Red Cross National Committee on Influenza to coordinate a national response. The Red Cross proved invaluable. The Red Cross National Committee took charge of recruiting, supplying, and paying all nursing personnel and was responsible for providing emergency hospital supplies when local authorities were unable to do so and for distributing doctors through the U.S. Public Health Service to wherever they were needed. The shortage of medical personnel created by the war meant that the Red Cross was more or less single-handedly responsible for coordinating the movement of medical personnel throughout the country. Between September 14 and November 7, 1918, the Red Cross recruited over 15,000 women with varying degrees of medical training to serve in military and civilian posts. By spring of the following year, the Red Cross had spent more than $2 million in services.

More Recent Decades

The severity of the 1918–1919 epidemic was not forgotten; since then, influenza has been a concern for physicians, scientists, and policy makers. With the exclusion of recent avian viruses passed directly from bird to human, all type A influenza viruses globally have originated from the 1918 H1N1 virus. In the early 1930s, scientist Richard Shope proved that the feared H1N1 virus was alive and thriving in the country's pig population. This is particularly feared because the pig can act as an intermediary animal, allowing avian flu strains to adapt to mammals and then be passed onto humans. This strain of the H1N1 virus in the pig population is often referred to as swine flu. In 1957 the threat of another pandemic appeared. Government and medical officials feared the return of the H1N1 virus, or swine flu. That was not the case. Although the virus killed upward of a million

individuals, it was not the H1N1 virus and instead became known as the Asian flu, an H2N2 virus. An earlier, and much less documented, influenza virus had occurred between 1889 and 1890. This pandemic was known as the Asiatic (Russian) flu. The Asiatic flu killed roughly one million individuals, and it is suspected that it too was an H2N2 virus. The most recent pandemic occurred from 1968 to 1969. Known as the Hong Kong virus (H3N2), it infected many, but the mortality rate was low. It was responsible for 750,000 to 1,000,000 deaths. Although there has not been a pandemic since the Hong Kong flu, public officials, hypersensitive to the threat of a flu epidemic, were concerned for the potential of a swine flu epidemic in 1976 and Asiatic flu pandemic in 1977.

In 1976, at Fort Dix, New Jersey, an 18-year-old private, feeling the symptoms of influenza, decided to join his platoon on a night march anyway. A few hours into the hike, he collapsed. He was dead by the time he reached the base hospital. Although the young private's death was the only suspicious death to occur, it was a reminder of the 1918–1919 virus's ability to kill young adults quickly, and officials feared another epidemic was at hand. Simultaneously, a young boy living on a Wisconsin farm contracted swine flu, surviving thanks to the antibodies produced by handling pigs, which were infected with Shope's swine flu virus. Overwhelmed by the potential consequences of being wrong, medical and government officials chose to prepare themselves for the worst and declared the potential for an epidemic. Dr. David J. Sencer, director of the Centers for Disease Control, requested a $134 million congressional allocation for developing and distributing a vaccine. Following a dramatic televised speech given by the President Gerald Ford, Congress granted $135 million toward vaccine development and distribution in a last-minute vote. The president signed Public Law 94–266, allocating funds for the flu campaign on national television, stating that the Fort Dix virus was the cause of the 1918–1919 pandemic. The epidemic never surfaced. The American flu campaign was criticized on both a national and an international level, and Sencer was removed from his position at the CDC in 1977.

Swine Flu and Bird Flu

The most recent influenza scares have centered on swine flu (H1N1) and avian flu (H5N1). Avian influenza, also known as bird flu, is an extremely virulent virus that generally infects only birds. In recent years, however, it has been documented as infecting pigs and most recently, humans. Since April 2009, CDC has received reports of 338 pediatric deaths from the strain, 282 due to H1N1. Both spread rapidly though animal and human populations and can produce a mortality rate of 100 percent within 48 hours. In 1997 the H5N1 virus spread directly from chickens to humans and killed 16 out of 18 infected. It is this particular virus to which the term *avian influenza* most commonly refers. After this incident, all chickens in Hong Kong (1.2 million) were slaughtered in an effort to contain the virus. This protective measure failed because the virus had been able to spread to the wild bird population. In 2003 two more people were infected with avian flu, and one died. When scientists first tried to develop a vaccine for avian flu using the

traditional vaccine growth medium, chicken eggs, they found that the virus was too lethal; the virus was killing the eggs in which it was being grown. A vaccine for avian flu now exists, but it took more than a year to develop, and it has not been stockpiled should a pandemic arise. All of those who caught the virus were infected directly by chickens, and the virus did not develop the ability to spread from human to human.

The potential for creation of a new, lethal virus exists, however. If one of the individuals who caught the avian flu had simultaneously been infected with a human influenza strain, it would have been possible for the two different strains of influenza to separate and recombine, using the human individual as an incubator to create a new strain of avian flu capable of being spread through human-to-human contact. It took a year to develop an avian flu vaccine. Should the virus mutate once more, it would have done the majority of its damage by the time a new vaccine could be developed by scientists. In an effort to stem this possibility, the World Health Organization (WHO) established a formal monitoring system for influenza viruses in 1948. Eighty-two countries and 110 laboratories participate by collecting information, which is then processed by four collaborating WHO laboratories. Any mutations in existing viruses are documented and are then used to adjust the next year's vaccine. The surveillance system also actively searches for any signs of a new influenza strain, especially one with the potential to mutate into the next pandemic.

See also **Epidemics and Pandemics; Vaccines**

Further Reading

Barry, John, *The Great Influenza: The Epic Story of the Deadliest Plague in History.* New York: Viking, 2004.

Centers for Disease Control, Key Flu Indicators, 2009, http://www.cdc.gov/h1n1flu/update.htm

Devlin, Roni K., *Influenza.* Westport, CT: Greenwood Press, 2008.

Garrett, Laurie, *The Coming Plague: Newly Emerging Diseases in a World Out of Balance.* New York: Penguin, 1995.

Gregor, Michael, *Bird Flu: A Virus of Our Own Hatching.* New York: Lantern Books, 2006.

Taubenberger, Jeffery, and David M. Morens, "1918 Influenza: The Mother of All Pandemics." *Emerging Infectious Diseases* 12, no. 1 (2006). http://www.cdc.gov/ncidod/EID/vol12no01/05–0979.htm

World Health Organization, "Influenza." *Epidemic and Pandemic Alert and Response (EPR).* http://www.who.int/csr/disease/influenza/en

INTERNET

Michael H. Farris

The Internet is a worldwide system of computers, a network of networks in which someone with one computer can potentially share information with any other computer.

With the number of such linked computers in the billions, the Internet is viewed as one of the most significant technology advances of the 20th century.

Understanding the Internet is not simply a matter of describing how it works, however. It also requires looking at the consequences of using the World Wide Web. The amazing ability of the Internet to hide its complex technologies leads some to think it is easy to understand. Anyone can point and click and traverse the globe. Fewer can speak sensibly about the way modern culture has changed for better and worse in the Internet age.

Today the terms Internet and World Wide Web mean the same thing for most people. Strictly speaking, they are different. The World Wide Web is the collection of documents, files, and media people access through the Internet. The Internet is the network technology that transports World Wide Web content. Put another way, the Internet makes the World Wide Web possible; it is the World Wide Web that makes the Internet essential.

The two terms are a useful way to talk about "the Internet," as most people call it. The first part of the story is the quiet building of the Internet among academics over 25 years. They had no idea of the eventual significance of their inventions. The second part of the story is the rise of the World Wide Web in popular culture, when it seemed everyone knew they had a revolution on their hands.

Origins

Before either story began to emerge, one of the elements of the Cold War between the United States and the Soviet Union was the significance of science. A few years earlier, the United States had established its superiority in science with the development and detonation of the atomic bomb (1945). Each side knew that scientists could win wars, and the A-bomb seemed indisputable proof of this truth at the time. The Soviets raced to develop their own nuclear weapons and then surpassed the United States by launching the first satellite in 1957. Was Soviet science now better than American science? Did the advantage of space mean victory for the Soviets? A shocked U.S. military responded by forming the Advanced Research Project Agency (ARPA), bringing together the best minds in the nation to regain the technological lead. But how could they work together and communicate across the country? In particular, how could their computers talk to each other and share research? The Internet began simply as the answer to that question.

Dozens of innovations mark the way to the Internet wave of the 1990s, but three building blocks stand out, all beginning with the letter *p:* packets, protocols, and the PC (personal computer). None were created with today's Internet in mind, but all three were used to build today's World Wide Web.

"Packets" were designed for a time of war. Planners needed a way to ensure command and control in the event of a nuclear attack. Regular telephone connections would be

useless in an attack, and radio broadcasts were too easily intercepted or jammed. ARPA scientists struck on a way to break up all information into packets, each carrying its destination address and enough instructions to reassemble thousands of packets like itself into original information at the end. Breaking down information into thousands of packets meant messages were hard to intercept and useless on their own. Because they were small, they were capable of traveling to their destination through any available route, even by many routes if one was blocked or busy.

Building Blocks

The Internet still works this way. Packets transfer all information, whether that information is Web pages, e-mails, file downloads, or instant messages. Trillions of packets flood through any available network and are routed to their destination by powerful gateway computers. These computers do not examine, filter, or store the packets. They simply send them on to a destination computer that reassembles them perfectly. Imagine a trillion postcards sent out every hour to millions of addresses everywhere in the world and arriving accurately in under a second. This is how the Internet functions, and it works amazingly well. During the 9/11 attack on New York City, regular phone service broke down almost immediately. Cell phone networks were overwhelmed. But e-mails continued to get through because they relied on a method of communication intended to function during a nuclear war.

All elements considered, however, the Internet most certainly would not withstand a real nuclear attack. Although the network itself and the packet method of communication would not fail, the electromagnetic pulse (EMP) of a nuclear explosion would incapacitate 95 percent of the computer chips around the blast zone. The network might continue to work, but the computers hooked up to it would not.

Interestingly, the original military point packets also make it extraordinarily hard to block, filter, or censor Internet content. What was simply a design feature for a time of war has now defined the Internet for those who resist all attempts to censor or to control information. It is ironic that technology for command and control now inspires those refusing any command and control at all over the Internet.

It is not surprising that the efficient method of letting computers talk together through packets caught the attention of university researchers in the 1960s. By the end of the decade, what might be recognizable as an Internet went online under the name ARPANET (Advanced Research Project Agency Network). It only linked a few computers used strictly for research. Private, personal, and commercial uses were not permitted. What was needed for the scientists was simply a way to yoke together multiple computers for solving complex problems. Packet communication was quickly adopted by universities as an excellent way to send large amounts of data through a single network.

The common protocol is the second building block of the Internet (a protocol is an agreed-upon way of doing things). Computer networks spoke the same way (packets);

now they needed a common language in which to communicate. Because networks of the day were built for diverse purposes, many languages were invented. Imagine talking in the United Nations lobby. Vinton Cerf, an ARPA scientist, proposed in 1974 a common protocol for inter-network exchange of information. His invention, called TCP/IP (Transmission Control Protocol/Internet Protocol), meant local computers always communicate with outside networks in a common language. The protocol did not achieve immediate adoption, but the benefit of using a common protocol spurred adoption. With it any computer network could access any other network anywhere in the world, and today TCP/IP is called the glue that holds the Internet together. It was at this time Cerf coined the word *inter-net* as a short form of *inter-network*.

The 1970s and 1980s saw steady growth in Internet connections, but things were still in the hands of researchers. Using the Internet required expensive equipment and mastery of arcane commands for each request. There was little popular awareness of the Internet, and few saw any particular use for it outside academic and military activity. A few small events, in hindsight, provided a catalyst for the eventual explosion of public Internet use in the 1990s.

One was the first e-mail, in 1972. Scientists needed a way to send instructions back and forth. Although this form of communication was officially frowned upon, messages soon involved birthday greetings, weekend plans, and jokes. Soon, the number of e-mails far exceeded the number of research files being exchanged. Another sign of things to come was the first online games played across the network. As early as 1972, administrators started noticing unusually high network traffic on Friday nights after someone uploaded a Star Trek game. People used the network to blast Klingons and compete with friends at other universities. These may have been the first computer nerds, and the significance of their gaming to the development of the Internet today should not be overlooked.

Another tool that in hindsight paved the way for the World Wide Web was USENET (this 1979 term is a contraction of *user network*). Large numbers of users "subscribed" to a special interest topic and were able to conduct two-way discussions. Soon the "news groups," as they were called, went far beyond research and even news and became online communities. They were the precursors of today's discussion forums, chat rooms, and RSS feeds. USENET groups were the watershed development for the shift to having users pull what they wanted personally from the network and then use the medium for the composition of popular content. The first Internet communities thus were born, giving a glimpse of how the World Wide Web would eventually work. USENET also introduced the first spam messages (unwanted communications), the first flame wars (often vicious online disputes), and the first online pornography.

Two more small events had important consequences for the Internet. One was the introduction of the Domain Name System (DNS) in 1984. In place of hard-to-remember numbers such as 74.14.207.99 for network addresses, simple names such as google.com

were enough. Now the network was far easier to use, and a name on the network took on potential value. The smallest but most significant event was the lifting of the prohibition against commercial use of the Internet in 1987.

The third building block for today's Internet was the PC (personal computer) introduced by Apple in 1976 and the widespread marketing of business versions by IBM in 1980. The key word here is *personal.* Until then computers were expensive tools for researchers or for the geeks who could build them. The personal computer was aimed at the general public. Soon companies developed graphical user interfaces (GUIs) to replace arcane command languages, and thus simple-to-use software was developed for the novice. The mouse, the icons, and the WYSIWYG (what you see is what you get) interface brought everyday computer use into mainstream society. Anyone could do it. By the end of the decade, personal computers numbered in the millions and were affordable and in the hands of people who played with them in addition to using them at work. With millions of computers in the hands of the utterly uninitiated, everything was ready for an Internet revolution 25 years in the making.

A Physicist's Dilemma

The unintentional revolutionary was Tim Berners-Lee, yet another researcher using the Internet in the late 1980s at the European Laboratory for Particle Physics (CERN) in Switzerland. He relied on the network to collaborate with colleagues around the world. Although the network was fine, the documents and files were not in the same format or easily found. He thought it would be much easier if everybody asking him questions all the time could just read what they wanted to know in his database, and it would be so much nicer if he could find out what these guys were doing by jumping into their similar databases of information. He needed a simple way to format documents and describe their location and some common way to ask for them. It had to be decentralized so that anyone anywhere could get information without asking someone. Ideally the requests could come from inside the documents as links to other documents, so that a researcher did not need to use some other application. Most of all, it had to be easy.

Berners-Lee sat down in 1990 and penned the specifications for a global hypermedia system with now-universal acronyms: HTTP (HyperText Transfer Protocol), HTML (HyperText Mark-up Language), and URL (Uniform Resource Locator). Though originally designed for far-flung researchers to collaborate on projects without bothering each other, the resulting universal information space set in place the keystone of today's Internet. For good measure Berners-Lee even gave his creation a name: the World Wide Web (WWW). He capped off these innovations with a small piece of software called a browser. He intended it only to make it easier for his peers to retrieve and read documents. He did not know it would touch off the modern Internet revolution.

Going to the Cyber Mall

For 25 years the word *Internet* was little known outside of academic circles. As the 1990s unfolded, however, everyone was talking about the Internet, also known as the Information Superhighway, Cyberspace, Infobahn, or simply the Web or the Net, as the technology took hold of popular culture. Everyone wanted to be on the Web, and users who hardly topped 100,000 at the beginning of the decade were on course to surpass 200 million by the end.

Why the sudden growth? In part the Internet was cheap and easy to use. Moreover, it was the effect on people's imagination the first time they clicked around the new frontier. Old rules of geography, money, and behavior did not apply. No one was in charge of the Web. Everything was available in this new world for free. Founded in 1993, the magazine *WIRED* trumpeted a techno-utopianism where the Internet would transform the economy, society, and even humanity itself. The experimental layouts and bold use of fluorescent and metallic inks in *WIRED* sum up the personality of the Internet in those early years, and the magazine is still published today.

For example, Marc Andreessen, one 21-year-old innovator, took Tim Berners-Lee's lowly browser made for research papers and added pictures, color, and graphic design. Others would soon add audio, video, animation, and interactive forms. His company (Netscape, formed in 1994) simply gave the browser away for six months and then went to the stock market with an IPO (initial public offering) worth $2.4 billion on the first day.

No wonder people began saying the Internet had started a "new economy." The Web erased constraints of geography and time. Anything digital could be multiplied a million times and distributed worldwide for free. Entrepreneurs lined up for the new gold rush of the information age. Billions poured in to fund every imaginable innovation, the stock market soared, and for years it seemed true that there was more profit in clicks than in a bricks-and-mortar industry.

What is called the "dot-com bubble" burst in 2000, draining away these billions and delivering the sobering reminder that, even in the "new economy," certain old economy values such as profitability, accountability, and customer service still mattered. Nevertheless, the Internet proved to be a seismic shock to business economics. Even the smallest business, no matter where located, could consider the world its marketplace. Companies that "got the Net" could outmaneuver large corporations. For the most part, traditional businesses did not disappear with the Internet; they adapted their old models to use it. Because most goods and services were physical, traditional business controlled means of production but used the Internet to improve supply management, ordering, and customer service.

Many point to Amazon and eBay, both launched in 1995, as examples of the "new economy." Amazon at first simply sold the old commodity of books. They built success

on the frictionless character of Internet access. Books were the same anywhere; the real problem was finding them in a local bookstore. Amazon saw that they could let people find a book easily, review what others thought of it, make payments with a single click, and never have to leave the house. It worked, and today every online seller works on the same principle as Amazon. The Internet enables better selection, cheaper prices, and faster delivery. Nevertheless, although Amazon is 100 percent online, this is still the old economy made better using new technology. To this success should be added industries such as banking, travel, and insurance, all transformed by the Internet within a few years. They migrated online with great success but used Internet technology to enhance existing business rather than to fundamentally change it.

Electronic Commerce

eBay introduced an online version of an economic model as old as society itself: person-to-person trading. The now $50-billion company produced nothing. It simply put buyer and seller together using the Internet. By providing a listing service and payment system and taking a commission, eBay makes a good case for being a "new economy" business. Millions of sellers, not just buyers, were now networked. The stroke of genius in eBay was their rating system for buyers and sellers to keep score on the reputation of each user. Anyone could see another's reputation and make a choice about whether or not to do business with a complete stranger. On the seemingly endless anonymity of the Web, eBay found a way establish old-fashioned reputation as a key economic currency.

It is important to emphasize that the new economy uses information and ease of communication as its currencies. Up to this point, economies were built on the relative scarcity of goods and services. Resources needed to be acquired, marketed, and sold, but they were always finite. The Internet turned this old economic model upside down. Instead of scarcity, it was built on an endless supply. Digital multiplication of information and distribution through the Internet were essentially without limit. What astonished users in the early days of the Web was that people were giving away everything free. Who was paying for this? Who could make money this way? In talking about the "new economy," it may be best to say that the Internet did not create it; rather, the Internet required a new economy.

Google (started in 1997) was an instant and spectacular success in the new economy. It did not enhance an old business; it created an entirely new one, though few saw it at first. The need for powerful search engines on the Web was apparent quite early. Once the problem of access to information on the network was solved, the next problem was finding it. With the growth of the Web, finding a page was like finding a needle in a million haystacks. But even with a search engine, the results could number in the tens of thousands. How could someone find good information?

When Google appeared, it looked like simply a better search engine, but the young graduate students who built it also designed human intelligence into the tool. Instead

of only words and titles, Google also analyzed the number and quality of links to each page. Millions of humans chose what pages they visited and what pages they built links to. Google tracked this. The more links to a Web page, the more likely it was that that Web page had good information. It was a surprisingly simple way to judge relevance. Google offered not only an index of the World Wide Web, but also a snapshot of what the world was thinking about it. eBay built a way to track the reputation of users; Google discovered ways to track the reputation of information.

What makes Google worthy of being included in the new economy is that it traffics wholly in information and the power to make sense of it. How can searches be given away free and the company be worth $100 billion? By giving away information and in some cases paying people to take their information, Google gathers intelligence about what is on the Web, what people think about it, and most of all what people are looking for. It is a marketer's dream. Put people and their interests together with products they are looking for, and there is business. The bulk of Google's revenue comes from advertising, which is systematically targeted by demographic, habit, and personal interest. Google does not want only to index the Web; it intends to analyze its users. The larger the Web, the greater the use of it, and the more profitable Google's share of the new economy.

Far different is the situation where an old-style business does battle with the new economy principles of the Internet. The prime example is media. If the Internet means that anything digital can be reproduced instantly across the whole system, is it possible to copy-protect music, movies, and books? Is it even desirable? The only thing that keeps this book from being copied a million times on the Web is the minor inconvenience of transferring the paper-based text to a digital format. If all digital media become potentially free, how will media conglomerates ever make a profit? How will artists earn a living? Software sales are another example. Copying software and posting it for others to use for free is a time-honored use of Internet technology.

Protecting Copyright

One response to unauthorized copying is increasingly sophisticated Digital Right Management (DRM) software, which makes media impossible to use without payment. In turn, clever coders have always found a way to crack the protection and post the media anyway. Various surveys have discovered that up to 50 percent of Internet users believe there is nothing wrong with taking illegal copies of software and music. It is likely that illegal downloads will never go away and that people will pay for media simply for the convenience of downloading from one place and having access to support for their downloads if there are problems. Neither honesty nor technology will have much to do with it. People will pay for not having to root around Warez sites (collections of illegal software) or locate P2P (peer to peer) repositories willing to share.

Another response has been high-profile lawsuits against people and companies with unauthorized media. The purpose is to frighten others into paying for valid copies. Although this works well against business and corporations, it has made barely a dent in the downloading of music and videos by individuals, especially the young. Today sales of CD music are down even as the number of people listening to songs increases, proving the point that the old-style business of media companies is under serious pressure from the "new economy" principles of the Internet.

A third response recognizes that the Internet may have changed the rules. It says that copying is not only allowed but encouraged. It turns the old media economy of control and distribution upside down. Now the artist or programmer wants the widest possible distribution of the media and gives it all away for free. The goal is exposure, increased sales of related items, or simply the desire to create and see others enjoy the creation. Opponents claim the practice will undermine the ability to control and profit from intellectual property. Others point out that art is in good health on today's Internet and that software development has never known such vitality.

The debate over what kind of "new economy" the Internet has helped to spawn leads to no consensus, but there is general agreement that the impact of the Internet on the worldwide economy, whether new or old, cannot be measured. It is somewhere in the trillions of dollars.

The Open Source Movement

There is another dimension of "the new economy" that relates to the economy of ideas on the Web. Here information and ease of communication are the currencies. The slogan "Knowledge wants to be free" is part ideology and part recognition that in digital knowledge, there is no cost of delivery. What is called the Open Source movement in the software industry insists that free distribution, work on projects by unlimited developers, and complete access to source codes will produce the best product. The Web makes it possible. Another vivid example of the new economy of ideas is Wikipedia, an online encyclopedia where anyone can improve articles written by anyone else. Its popularity now rivals that of the famed *Encyclopedia Britannica.*

Discussions of a "new society" built through the Internet follow the same pattern as those on the new economy. Enthusiasts claim that the Internet will inaugurate a golden age of global community. No distance, no border, and no restriction on information will improve education, stimulate communication, spread democracy, benefit rich and poor alike, and level the playing field in a new Internet age. Much of the language about the Internet, from the early years onward, is strongly utopian and uses the word *revolutionary* more often than is wise!

Critics of the so-called Internet revolution fear that the Internet will only take people away from real-world problems and genuine human interaction. Government and corporations will use the technology to snoop on and manipulate citizens. Criminals

will invent new high-tech crimes, and at best the world will be no better and at worst much worse.

Neither the dreams nor the nightmares of the Internet age have arrived, but both the enthusiast and the critic have seen hopes and fears realized on the Web.

Impact on Education

For example, education, as old as society itself, finds itself a beneficiary of the Web and an area of major concern. It is true that students now have access to many times the learning content of a few years ago. Books, images, research tools, multimedia, and simulations have been mainstreamed in Western education. Internet literacy is an accepted competency for the educated person. Web-based learning has opened up higher education to greater numbers. The Internet removes many of the physical and time restrictions to learning.

But is the learning available on the Internet good? Where once a teacher could ensure the quality of resources, now the words "found on the Web" can apply to the latest research or to complete nonsense. How will students fulfill the social dimensions of their experience on the Web? Although content-oriented subjects do well in Web-based learning, how can hands-on skills ever be put on the Web? Students find an abundance of information on the Web, but they can also copy and paste it, claiming it as their own. Completion rates for Web-based learning are less than half of those in face-to-face learning, however.

Uses and Gratifications

As it was with the new economy, the new society has turned out to be mainly a version of the old society operating at Web speed. Few things are actually new on the Web. People use the Internet to chat, visit, flirt, and play. Dating, cybersex, marriage, and funerals are all on the Web. Birth still poses a challenge, but in every case there is some version on the Web of what people have been doing for thousands of years. The Web is more of a reflection of society than a force shaping society.

More often than not, quite unforeseen consequences have emerged from the Internet. For example, could the early adopters of e-mail have predicted that more than half the eventual traffic would be spam (unwanted email)? For years visionaries have promised the paperless office, but each year paper use goes up. Office productivity was meant to increase dramatically once everyone was wired into the network. Instead, the Web became the number one source for wasting office time. Dreamers announced whole armies of knowledge workers who would commute via the Internet. Little did they foresee that those knowledge workers would come from halfway around the world, outsourcing or displacing the jobs of local workers.

What should be regarded as "new" in the wired world is the speed with which things happen and the vast increase in the number of people who can be involved. Technology

does not change the way people live on the Internet as much as it multiplies its effects. An embarrassing video once circulated among friends and family now can be found by millions of strangers and can never be taken back. A pickpocket could steal a few wallets in a day. A good hacker now can steal a million credit cards in a minute. A rumor or a piece of false information falls into a database or search engine, and suddenly it competes on equal footing with the truth.

A new and dangerously ignored consequence of the Web is the persistence of information. Internet technology not only retrieves data but also keeps it around, perhaps forever. Until now people could trust that their words and written notes simply disappeared or at least could be controlled. This is not so on the Web. Information is kept, and it may be found by anyone in the world.

Privacy, or the lack of it, is certainly an old issue taking a new form on the Web. In the early days, people reveled in the seeming anonymity of their Web browsing. They could hide behind a billion packets and the complex communications of TCP/IP; but not anymore. Online companies track browsing habits. Local Web servers log every request made from a browser. Chat rooms archive information. Governments routinely listen in on the chatter moving across the networks. Unsuspecting users routinely let tracking programs be installed on their computers and give away personal information in exchange for Web-based baubles. Worse, people publish all manner of personal detail on the Web, not grasping that Google and other search engines make this information permanent and findable by anyone. Already employers are searching the history of potential employees on social networking sites. Many people have lost jobs because of some frivolous post made years before. It will not be long before some political candidate for high office will be undone by the record of some indiscreet posting in a forum or visit to an unsavory Web site.

Internet addiction disorder, a distraction causing emotional attachment to and obsessive behavior associated with one's online reputation, is a new wrinkle in the connectivity excitement. Among first-graders in China, A 2010 study revealed that nearly 11 percent showed a preoccupation with surfing the Internet. Documenting the addiction tendency is a new area of psychological research resulting from the "information age." In particular, it has become increasingly relevant for forensic psychiatry because a person's Internet presence can help support or refute a diagnosis presented as part of a court case. For example, the choice of screen name, amount of self-disclosure, and provocative behavior in social media forums can be used to describe a person's credibility and quality of insight or supportable judgment. In this way, the Internet is shaping societies around the globe like a virus. A school of thought about the viral qualities of the Internet is the basis for *memetics,* a branch of cultural anthropology that considers how culture replicates.

It is certain that the World Wide Web has not created the new society some of its cheerleaders proposed. It is also doubtful that society itself has changed that much as a result of the introduction of the Internet to mainstream culture. The idea that technology

by itself will determine the character of human life is naïve. It is fair to say, however, that society has not kept up with the consequences of Internet technology. In part this is because the technology is young and people are too close to it. The next wave of the Internet is likely to be the widespread linking not just of personal computers but of things. Phones, media players, and gaming are already widespread online. Someday it could be vehicles, appliances, tools, and parts of the human body linked into a global interactive network.

How then can the significance of the Internet be understood today? First and foremost, it should not be regarded as something entirely new, nor should one listen too closely to either its fans or its cynics. It is one of many innovations dubbed a revolution by some and a threat to society by others. Compare the Internet to electricity, the telegraph, transatlantic cable, telephone, radio, television, satellites, or computers. All struck awe into their first users but were adopted by the next generation as simply the way things are done. None was revolutionary by itself. The social changes that have come with these technologies have as much to do with how people envisioned them, reacted to them, and applied them as they do with the inventions themselves.

Human imagination has a remarkable capacity to adapt technology in ways its inventors did not consider. Therefore society is less likely to be transformed by the Internet than to transform the Internet into areas not yet conceived.

See also **Advertising and the Invasion of Privacy (vol. 1); Conglomeration and Media Monopolies (vol. 1); Intellectual Property Rights (vol. 1); Cybercrime (vol. 2); Identity Theft (vol. 2); Video Games (vol. 3)**

Further Reading

Anderson, Janna Quitney, *Imagining the Internet: Personalities, Predictions, Perspectives.* Lanham, MD: Rowman & Littlefield, 2005.

Aspray, William, and Paul E. Ceruzzi, eds., *The Internet and American Business.* Cambridge, MA: MIT Press, 2008.

Buckley, Peter, and Duncan Clark, *The Rough Guide to the Internet.* London: Penguin, 2007.

King, Elliot, *Free for All: The Internet's Transformation of Journalism.* Evanston, IL: Northwestern University Press, 2010.

Kirkpatrick, David, *The Facebook Effect: The Inside Story of the Company That Is Connecting the World.* New York: Simon & Schuster, 2010.

Negroponte, Nicholas, *Being Digital.* New York: Knopf, 1995.

Scott, Virginia, *Google.* Westport, CT: Greenwood Press, 2008.

Standage, Tom, *The Victorian Internet.* New York, Walker, 1998.

Stoll, Clifford, *Silicon Snake Oil: Second Thoughts on the Information Highway.* New York: Anchor, 1996.

L

LAND POLLUTION

Robert William Collin and Debra Ann Schwartz

Imagine a river running yellow. Or red. Or chemical blue. Military experiments with biological warfare, using explosives, turned rivers red from cadmium, blue from cobalt, and yellow from sulfur during the First and Second World Wars. The rivers deposited the mineral waste along their banks, and the land sucked it in further, creating what is called a plume. Think of British Petroleum's Deepwater Horizon oil well. When it gushed, it created a plume of oil throughout much of the Gulf of Mexico. That plume drifted. When the oil reached coral reefs and shores that collected it from the water, the oil remained on the land, which absorbed it and thus began to create another plume.

Polluted land also results from acid rain, industrialization, body waste, and ecological imbalance. In the case of industrialization, whose production processes have emitted acids into the air, phosphates into the water, and liquid and solid chemicals into the land, a federal law was created in the 1970s to discourage industrial waste dumping. That law is commonly known as Superfund. More formally, it is called the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA. It exists to create a legal process for finding the polluters responsible for contaminating the land and holding them financially accountable. The law was born out of a chemical waste dump in Love Canal, New York, that made the neighborhood a ghost town.

State, tribal, and local waste programs and policies also exist to prevent pollution by reducing the generation of wastes at their source and by emphasizing prevention over management and subsequent disposal. Preventing pollution before it is generated and

poses harm is often less costly than cleanup and remediation. Source reduction and recycling programs often can increase resource and energy efficiencies and thereby reduce pressure on the environment. When wastes are generated, the EPA, state environmental programs, and local municipalities work to reduce the risk of exposures. If land is contaminated, cleanup programs address the sites to prevent human exposure and groundwater contamination. Increased recycling protects land resources and extends the life span of disposal facilities.

Kinds and Types of Waste

The types of waste generated range from yard clippings to highly concentrated hazardous waste. Only three types of waste—municipal solid waste (MSW), hazardous waste (as defined by the Resource Conservation and Recovery Act [RCRA]), and radioactive waste—are tracked with any consistency on a national basis. Other types of waste are not, though they contribute a substantial amount to the total waste accumulated. This is a gaping hole is U.S. environmental policy. These other types of waste contribute a substantial amount to the total waste universe, although the exact percentage of the total that they represent is unknown.

Municipal solid waste, commonly known as trash or garbage, is one of the nation's most prevalent waste types. The EPA has estimated that the U.S. generated 250 million tons of solid waste in 2008, with about 54 percent going to landfills. The new figure represents a nearly 8 percent increase during a 10-year period. In 2000, the United States generated approximately 232 million tons of MSW, primarily in homes and workplaces—an increase of nearly 160 percent since 1960. The EPA updates its statistics every two years. The next update will report 2010 figures.

Between 1960 and 2000, the U.S. population increased by 56 percent, and gross domestic production increased nearly 300 percent. In 1960, with a much smaller population than today, each person in the U.S. generated about 2.7 pounds of waste per day. In 2008, after accounting for recycling and composting, the EPA estimated each person in the United States generated 3 pounds of waste per day. The figures provide that individuals generated 4.5 pounds of waste per day, with 1.5 pounds per person recycled and composted. With that in mind, it can be argued that per-person waste generation today is down from the 2000 estimates of 4.5 pounds of waste per day.

In 2008, Americans recovered about 61 million tons of waste through recycling, with composting recovering 22.1 million tons of waste. About 32 million tons were incinerated for energy recovery. In June 2010, the EPA was seeking public comment on a proposed rule better defining what nonhazardous waste could be incinerated. Residue from waste combustion is emitted into the atmosphere and the remaining ash typically put into an ashfill on land.

The EPA reports that Americans recycled more than 7 million tons of metals (including aluminum, steel, and mixed metals) in 2008, which "eliminated greenhouse gas

emissions totaling close to 25 million metric tons of carbon dioxide equivalent (MMTCO2E). That is like removing more than 4.5 million cars from the road for one year.

Hazardous waste as defined by the EPA is anything containing a material or chemical capable of causing illness, death, or harm to humans and other life forms when mismanaged or released into the environment. The phrase *RCRA hazardous waste* applies to hazardous waste that is ignitable, corrosive, reactive, or toxic, which is regulated under the act. In 1999, the EPA estimated that 20,000 businesses generating large quantities (more than 2,200 pounds each per month) of hazardous waste collectively generated 40 million tons of RCRA hazardous waste. Comparisons of annual trends in hazardous waste generation are difficult because of changes in the types of data collected (e.g., exclusion of wastewater) over the past several years. But the amount of a specific set of priority toxic chemicals found in hazardous waste and tracked in the Toxics Release Inventory (TRI) is declining. In 1999, approximately 69 percent of the RCRA hazardous waste was disposed of on land by one of four disposal methods: deep well/underground injection, landfill disposal, surface impoundment, or land treatment/application/farming.

In 2000, approximately 600,000 cubic meters of different types of radioactive waste were generated, and approximately 700,000 cubic meters were in storage awaiting disposal. By volume, the most prevalent types of radioactive waste are contaminated environmental media (i.e., soil, sediment, water, and sludge requiring cleanup or further assessment) and low-level waste. Both of these waste types typically have the lowest levels of radioactivity when measured by volume. Additional radioactive wastes in the form of spent nuclear fuel (2,467 metric tons of heavy metal) and high-level waste glass logs (1,201 canisters of vitrified high-level waste) are in storage awaiting long-term disposal. EPA fact sheets are available that describe, on a state-by-state basis, the amount of hazardous waste in a state and where it is located.

Extent of Land Used for Waste

Nearly 3,500 acres per year in the U.S. store waste according to the EPA's figures, a clarion call much like the movie WALL*E. Between 1989 and 2000, the number of municipal landfills in the United States decreased substantially to 2,216 from 8,000. Since then the number has increased slightly. According to the EPA, the United States currently has 3,091 active landfills and more than 10,000 old municipal landfills. However, it can be reasoned that there are many more based on U.S. Census figures. As far back as 1997, for example, data show that there are 39,044 general-purpose local governments in the United States.; 3, 043 county governments; and 36,001 subcounty general-purpose governments. Potentially, all of them could have garbage dumps.

Landfills today tend to accept only certain kinds of garbage. Some accept only a specific kind of solid waste, such as food products or fibers. In the past, any kind of waste could be tossed into the local garbage dump. However, as military bases including forts

become decommissioned, environmental assessments find everything from typewriters to dead horses in a single landfill. That old landfill typically would not have any kind of liner to protect the land from contamination as the items decomposed. Today, because of products made of petroleum, carbon, synthetics, and other human-made items that leak toxic chemicals into the land as they decompose, landfills are lined. And a single landfill does not accept all kinds of waste. As necessary, some waste is separated out as too toxic for a municipal landfill; it must be sent to a special waste disposal site.

In terms of landfill capacity, in 2000, municipal landfills received approximately 128 million pounds of MSW, or about 55 percent of what was generated. In addition to municipal landfills, the nation had 18,000 surface impoundments—ponds used to treat, store, or dispose of liquid waste—for nonhazardous industrial waste in 2000. Excluding wastewater, nearly 70 percent of the RCRA hazardous waste generated in 1999 was disposed of at one of the nation's RCRA treatment, storage, and land-disposal facilities. Of the 1,575 RCRA facilities, 1,049 are storage-only facilities. The remaining facilities perform one or more of several common management methods (e.g., deepwell/underground injection, metals recovery, incineration, landfill disposal).

The United States also uses other sites for waste management and disposal, but no comprehensive data sets are available. Before the 1970s, waste was not subjected to today's legal requirements to reduce toxicity before disposal and was typically disposed of in open pits. Early land-disposal units that still pose threats to human health and the environment are considered contaminated lands and are subject to federal or state cleanup efforts.

Extent of Contaminated Land

Many contaminated sites must be managed and cleaned up today because of leaking underground storage tanks for gasoline (generally found under gas stations). These are located throughout the country, and their levels of contamination vary. Some sites involve small, nontoxic spills, such as a private garage where someone did an oil change. Others might involve large acreages of potential contamination, such as abandoned mine sites or a dry cleaning business tossing chemicals into the land behind the store. To address this contamination, federal and state programs use a variety of laws and regulations to initiate, implement, and enforce cleanup. The contaminated sites are generally classified according to applicable program authorities, such as RCRA Corrective Action, Superfund, and state cleanup programs.

The most toxic abandoned waste sites in the nation appear on the National Priorities List (NPL). Thus, examining the NPL data provides an indication of the extent of the most significantly contaminated sites. NPL sites are located in every state and several territories. As of May 2010, a total of 61 sites were proposed for listing; 1,279 sites had been finalized by then, and 341 had been deleted from the list. Sites are considered for deletion from the NPL list when cleanup is complete.

The EPA also estimates that approximately 3,700 hazardous waste management sites may be subject to RCRA corrective action, which would provide for investigation, cleanup, and remediation of releases of hazardous waste and constituents. Contamination at the sites ranges from small spills that require soil cleanup to extensive contamination of soil, sediment, and groundwater. Corrective action sites are given high priority and targeted for immediate action by federal, state, and local agencies.

Another type of contaminated land is a brownfield. Brownfields are areas with levels of contamination too low to qualify as Superfund sites. The soil may be highly polluted and carry an estimated cleanup cost of $6 million, while Superfund cleanup status generally starts at $20 million. Brownfields are often found in and around economically depressed neighborhoods. Cleanup and redevelopment puts these often abandoned properties back on the tax roles, benefitting a community financially and potentially providing jobs in the area. Brownfields cannot be redeveloped as community farms because of levels of contamination that the EPA finds acceptable for only redevelopment. The EPA bases its soil toxicity levels and their effect on human health on what would happen if a person ate a certain amount of soil. The EPA calculates "acceptable risk" based on how the property will be used in the future. That is typically determined by local zoning boards.

Human Health Effects and Contaminated Land

Determining the relationship between types of sites and human health is usually complicated. For many types of cancer, understanding is limited by science and the fact that people usually are exposed to many possible cancer-causing substances throughout their lives. Isolating the contributions of exposure to contaminants to incidence of respiratory illness, cancer, and birth defects is extremely difficult—impossible in many cases. Nonetheless, it is important to gain a more concrete understanding of how the hazardous materials associated with waste and contaminated lands affect human populations.

Although some types of potential contaminants and waste are not generally hazardous to humans, other types can pose dangers to health if people are exposed. The number of substances that exist that can or do affect human health is unknown; however, the TRI program requires reporting of more than 650 chemicals and chemical categories that are known to be toxic to humans.

The federal Superfund program identifies sources of common contaminants, including commercial solvents, dry-cleaning agents, and chemicals. With chronic exposure, commercial solvents such as benzene may suppress bone marrow function, causing blood changes. Dry-cleaning agents and degreasers contain trichloroethane and trichloroethylene, which can cause fatigue, depression of the central nervous system, kidney changes (e.g., swelling, anemia), and liver changes (e.g., enlargement). Chemicals used in commercial and industrial manufacturing processes—such as arsenic, beryllium, cadmium, chromium, lead, and mercury—may cause various health

problems. Long-term exposure to lead may cause permanent kidney and brain damage. Cadmium can cause kidney and lung disease. Chromium, beryllium, arsenic, and cadmium have been implicated as human carcinogens.

Ecological Effects

Hazardous substances—whether present in waste, on lands used for waste management, or on contaminated land—can harm wildlife (e.g., cause major reproductive complications), destroy vegetation, contaminate air and water, and limit the ability of an ecosystem to survive. For example, if not properly managed, toxic residues from mining operations can be blown into nearby areas, affecting resident bird populations and the water on which they depend. Certain hazardous substances also have the potential to explode or cause fires, threatening both wildlife and human populations.

The negative effects of land contamination and occasionally of waste management on ecosystems occur after contaminants have been released on land (soil/sediment) or into the air or water.

Conclusion

The extent of land pollution is unknown at this time. Cleanup costs are enormous, which results in complex and expensive litigation to determine liability for these costs. In the United States, cities have only recently been included in the environmental protection

CLEANUP OF THE EAGLE MINE SUPERFUND SITE

The Eagle Mine, southwest of Vail, Colorado, was used to mine gold, silver, lead, zinc, and copper between 1870 and 1984. After the mine closed, several contaminants—including lead, zinc, cadmium, arsenic, and manganese—were left behind; they spread into nearby groundwater, the Eagle River, and the air, posing a risk to people and wildlife.

Colorado filed notice and claim in 1985 against the former mine owners for natural resource damages under Superfund. In June 1986, the site was placed on the National Priorities List, and shortly thereafter the state and the previous owners agreed to a plan of action. Cleanup operations included constructing a water treatment plant to collect mine seepage and other contaminated water sources, relocating all processed mine wastes and contaminated soils to one main on-site tailings pile, capping that pile with a multilayer clean soil cap, and revegetating all disturbed areas with native plant species.

The water quality in the Eagle River began to show improvements in 1991; as zinc concentrations in the river dropped, the resident brown trout population grew. An October 2000 site review concluded that public health risks had been removed and that significant progress had been made in restoring the Eagle River. Today, biological monitoring is undertaken to evaluate the Eagle River's water quality, aquatic insects, and fish populations.

policy umbrella. Controversies about land pollution generally focus on cleanup of the most serious wastes and/or relocation of the community.

See also **Brownfields Development; Industrial Agricultural Practices and the Environment; Sprawl; Waste Management**

Further Reading

EPA, www.epa.gov

Genske, Dieter D., *Investigation, Remediation, and Protection of Land Resources.* Dunbeath, UK: Whittles, 2007.

Macey, Gregg P., and Jonathan Z. Cannon, *Reclaiming the Land: Rethinking Superfund Institutions, Methods, and Practices.* New York: Springer, 2007.

Nathanail, C. Paul, and R. Paul Bardos, *Reclamation of Contaminated Land.* New York: Wiley, 2004.

Owens, Susan E., and Richard Cowell, *Land and Limits: Interpreting Sustainability in the Planning Process.* New York: Routledge, 2002.

Randolph, John, *Environmental Land Use Planning and Management.* Washington, DC: Island Press, 2004.

Sigman, Hillary, ed., *The Economics of Hazardous Waste and Contaminated Land.* Northampton, MA: Edward Elgar, 2008.

LEAD EXPOSURE

Robert William Collin

Environmental exposure to lead can cause life-impairing if not deadly consequences. Lead is a metal that can harm humans and the environment and is present in many pollutants and consumer goods. Many of the controversial issues surrounding lead exposure relate to scientific disagreement over the extent and severity of exposure. Other controversies relate to political disagreements over who is exposed, when to test for lead exposure, and who will pay for diagnosis and treatment.

What Is Lead?

Lead is essentially a mineral. Minerals are formed by hot solutions working their way up from deep below the earth's rocky crust and crystallizing as they cool near the surface. From early history to the present, lead mining has been part of human culture. Lead has been a key component in cosmetic decoration as a pigment; a spermicide for informal birth control; a sweet-and-sour condiment popular for seasoning and adulterating food; a wine preservative for stopping fermentation or disguising inferior vintages; the malleable and inexpensive ingredient in pewter cups, plates, pitchers, pots and pans, and other household artifacts; the basic component of lead coins; and the material of

children's toys. Most important of all was lead's suitability for making inexpensive and reliable water pipes. Lead pipes are still used in many parts of the world and are still present in the United States. Lead pipes kept the Roman Empire supplied with water. From then until now lead has been part of our society.

Human exposure to lead is a serious public health problem. Lead adversely affects the nervous, hematopoietic, endocrine, renal, and reproductive systems of the body. Of particular concern are the effects of relatively low levels of lead exposure on the cognitive development of children. Since the 1970s, federal environmental regulations and abatement efforts have mainly focused on reducing the amount of lead in gasoline, paint, and soldered cans. In addition, some federal programs have supported screening for lead poisoning in children by state and local health departments and physicians as well as lead abatement in housing. Currently, lead exposure usually results from lead in deteriorating household paint, lead at the workplace, lead used in hobbies, lead in some folk medicines and cosmetics, lead in children's toys, and lead in crystal or ceramic containers that leaches into water or food.

Since the late 1970s, the extent of lead exposure in the U.S. population has been assessed by the National Health and Nutrition Examination Surveys (NHANES). These national surveys have measured blood lead levels (BPbs) of tens of thousands of children and adults and assessed the extent of lead exposure in the civilian population by age, sex, race/ethnicity, income, and degree of urbanization. The surveys have demonstrated an overall decline in BPbs since the 1970s, but they also have shown that a large number of children continue to have elevated BPbs (10 μg/dL). The U.S. EPA claims that owing to environmental regulations, airborne lead amounts have decreased by 90 percent from 1980 to 2005.

Sociodemographic factors associated with higher blood lead levels in children were non-Hispanic black race/ethnicity, low income, and residence in older housing. The prevalence of elevated blood lead levels was 21.9 percent among non-Hispanic black children living in homes built before 1946 and 16.4 percent among children in low-income families who lived in homes built before 1946. Overall, blood lead levels continue to decline in the U.S. population. The disproportionate impact on urban people of color makes it an environmental justice issue, although lead can work its way through ecosystems and affect other groups downwind or downstream.

Lead is a highly toxic metal that was used for many years in products found in and around our homes, schools, and workplaces. Lead can cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Children six years old and under are most at risk because their bodies are growing quickly.

The EPA is playing a major role in addressing these residential lead hazards. In 1978, there were some 3 to 4 million children with elevated blood lead levels in the United States. By 2002, that number had dropped to 310,000 children, and it continues to decline. Since the 1980s, the EPA has phased out lead in gasoline, reduced lead in drinking

water and industrial air pollution, and banned or limited lead used in consumer products, including residential paint. States and cities have set up some programs to identify and treat lead-poisoned children and to rehabilitate deteriorated housing. Parents have greatly helped to reduce their children's lead exposure by eliminating lead in their homes, having their children's blood lead levels checked, and learning about the risks of lead for children.

Some population groups continue to be at disproportionately high risk for elevated lead exposure. In general, these are people with low income, people of non-Hispanic black race, and people who live in older housing. Residence in a central city with a population of more than a million people was also found to be a risk factor for lead exposure.

These high-risk population groups are important to recognize for targeting of public health efforts in lead-poisoning prevention. Leaded paint, especially in older homes, is a continuing source of lead exposure. In the United States, approximately 83 percent of privately owned housing units and 86 percent of public housing units built before 1980 contain some lead-based paint. Commercial and industrial structures often have much more lead paint. Bridges are often repainted, and this uses large amounts of lead paint. The areas under the bridges are often contaminated with lead. If the area under a bridge is land, the lead accumulates on the ground and in the dirt. Many bridges of this type are older and in urban areas. Between 5 and 15 million homes contain paint that has deteriorated to the point of being a health hazard. Lead hazard control and abatement costs are highly variable, depending on the extent of the intervention, existing market conditions, type of housing, and associated housing rehabilitation work. Because of the high cost of abatement, the scarcity of adequately trained lead-abatement professionals, and the absence (until 1995) of federal guidelines for implementing less costly methods of containing the hazard of leaded paint, residential lead paint–abatement efforts have focused on homes in which there is a resident child with an elevated BPb rather than on those that have the potential to expose a child to lead. Similarly, publicly funded lead-poisoning prevention programs have focused on screening children to identify those who already have elevated BPbs, so that they may receive interventions, rather than on preventing future lead exposure among children without elevated levels. This is an issue in the public health arena. At least some of the adverse health effects that occur even at relatively low levels of lead may be irreversible. Efforts to prevent lead exposure through screening are important to ensure that children with elevated BPbs receive prompt and effective interventions designed to reduce further lead exposure and minimize health consequences. These types of programs are not consistently well funded.

One source of lead in many countries is vehicle emissions. In the United States these emissions are much lower because lead-free gasoline is used in cars. However, other airborne vehicle emissions, as from diesel, may have a detrimental effect on children. In urban areas near congested roads, exposure to lead via air may be a large vector.

A controversial issue is whether ambient air quality standards are adequate to protect the health of children. Currently a few state environmental agencies are working to identify toxic air contaminants that may cause infants and children to be especially susceptible to risks. In many cases, children may have greater exposure to airborne pollutants than do adults. Children are often more susceptible to the health effects of air pollution because their immune systems and developing organs are still growing. Lead that is inhaled is more easily lodged in the fast-growing bones of children. In a child, it may take less exposure to airborne lead to initiate an asthma attack or other breathing ailment owing to the smaller size and greater sensitivity of the child's developing respiratory system.

Conclusion

As a pervasive material in civilization, lead is ubiquitous. Lead in the water pipes and drinking vessels may have poisoned the people of Rome and contributed to its downfall. Lead still remains in plumbing systems throughout the United States. In Washington, D.C., some of the leaded sewer and water pipes dead end. This means that there is no way to flush them clear of corrosive wastes and debris. This increases the rate of corrosion of these pipes and leaches lead into the water. When the pipe breaks, it may slowly seep lead-contaminated water into the surrounding ground. Such ground can be anywhere the pipe is found, near a road, river, school, factory, or any place connected to or near the break. This is a matter of great concern in chemically polluted older communities and can develop into a land-use issue or an issue around the environmental permits that may be necessary. Refining methods to assess health risks from lead that may exist at proposed and existing school sites is under way. Because lead is found in so many places where vulnerable populations exist, from children's toys to hospitals, controversy around lead exposure and cleanup will increase.

The disposal of lead as hazardous waste is also a controversial issue. Demolition of lead-contaminated houses, factories, and infrastructure creates hazardous waste. If burned in an incinerator, the lead could be spread in the air as particulate matter. The disposal of this type of toxic ash can also become a controversy. If the lead-contaminated structure simply stays in place, the lead can affect the soil and nearby water. The reluctance to expend the resources necessary to protect the most exposed people from lead contamination ensures a continuing controversy. This controversy may not necessarily diminish even as science removes uncertainty about lead contamination.

See also **Air Pollution; Mining of Natural Resources; Transportation and the Environment; Waste Management**

Further Reading

Casas, José S., and José Sordo, eds., *Lead: Chemistry, Analytical Aspects, Environmental Impact, and Health Effects.* Boston: Elsevier, 2006.

Millstone, Erik, *Lead and Public Health: The Dangers for Children.* Washington, DC: Taylor and Francis, 1997.

Moore, Colleen F., *Silent Scourge: Children, Pollution, and Why Scientists Disagree.* New York: Oxford University Press, 2003.

Troesken, Werner, *The Great Lead Water Pipe Disaster.* Cambridge, MA: MIT Press, 2006.

LOGGING

Robert William Collin and Scott M. Fincher

The cutting down of trees, called logging, has severe environmental effects. Attempts at sustainable logging are considered monoculture production, which is the practice of cultivating a single crop in a given area. It is not considered ecosystem preservation. The U.S. Forest Service, a unit of the Department of Agriculture, permits private corporations to cut down trees on public lands. The profits go to the logging company. Permits for cutting trees, salvage logging, and fire-reduction cuts are controversial, in part because of the fees the Forest Service charges.

A Growing Nation and the Need for Land

Historically, clearing land of trees was necessary for human settlement. Clear land was necessary for growing crops. The trees also had provided cover for wildlife, which most American pioneers tried to keep away from their homes and livestock. Today, clearing trees by centuries-old slash-and-burn techniques continues, but modern technology and monoculture pesticide-supported growing techniques make it easier for faster and more extensive deforestation.

Today, logging to clear land for other agriculture is less common although still controversial. Modern logging now treats trees as raw materials for the production of wood and paper among other products.

Environmental Effects

Logging has short- and long-term environmental effects. It affects many parts of the ecosystem because trees are essential components in many ecosystems. They retain water, cast shade over land and water, and provide food and shelter to wildlife.

Although there are many types of trees, only some species are logged. In many ecosystems trees fill unique ecological niches. One example is the Port Orford cedar growing on Oregon's coast. Having adapted to the wet, windy conditions of its ecosystem, it flourished. When it was plentiful, it was logged.

In the 1980s a deadly virus attacked the species. Port Orford cedars grow and communicate through their roots, and the virus moved from tree to tree, wiping out whole groves. State biologists sought preventive solutions, and environmentalists became very concerned. Meanwhile, the U.S. Forest Service permitted logging in and near a

wilderness area with some of the last stands of Port Orford cedar. The loggers transmitted the virus to these trees, although they were not logging the Port Orford cedars.

Intense environmental litigation ensued. Among other issues, the court ruled that the loggers were to wash their logging vehicles upon entering and leaving the wilderness area. They do not do this, and the fight over the issue continues.

Logging and Soil Erosion

Another concern about logging is how much soil erosion it causes. Soil erosion degrades the environment in most places because it lowers the ecological productivity of a region. Soil supports plants that wildlife need for food or shelter. When roads are built and heavy loads of logs are moved on them, the stability of the soil on any type of slope is greatly affected. Because many trees are in mountainous areas, logging roads are often built along the sides of valleys or canyons. At the bottoms of these valleys and canyons are usually creeks, streams, and rivers. When the soil becomes unstable, it can cause landslides or allow runoff that hurts fish and other aquatic species. The landslides can occur months or years after the logging operation ceases because the trees are no longer there to hold the soil in place. Some states have more miles of logging roads than paved roads.

Forests also provide a buffer that filters water, and they sustain water and soil resources by recycling nutrients. In watersheds where forests are adversely affected by logging, soil erosion results in silting of the waterways, which, when combined with the loss of shade from trees, increases the temperature of the water, thus threatening aquatic life. Silting can also impede human use of water downstream. This affects agricultural users, cities, and natural systems. In Salem, Oregon, in the late 1990s, overlogging caused the city to close the public water supply. Clear-cutting trees on steep slopes had caused silting of the water in the watershed.

Effects on Climate

Local changes in precipitation are direct and immediate when the forest cover is removed. Trees and forests engage in a natural process of transpiration that modifies water flow, balancing the effects of fluctuations in water volume. Reducing transpiration increases both runoff and erosion.

Loss of Biodiversity

Some scientists and environmentalists assert that logging reduces biodiversity by destroying natural habitats. They fear that that this could lead to the extinction of species, such as the spotted owl in Oregon. The logging industry has developed some replanting and selective harvesting techniques designed to minimize habitat degradation and soil erosion. Some logging corporations say that they try to keep a protected

strip of land next to the waterways, a procedure called riparian protection. They limit the number of trees they take from steep slopes so as to prevent soil erosion. They buy land and plant their own trees and then engage in logging there instead of on federally owned land. Logging corporations also prepare environmental impact statements in applying for permits to cut trees on federal land. These corporate techniques are contested by environmentalists, who say that logging corporations do minimal mitigation, create far more damage than they report, and also take trees illegally from federally owned lands.

Many rural western communities are dependent on logging as their only source of income. Since the spotted owl controversy of the 1980s, about 60 logging mills have closed down in Oregon alone.

Sustainable Logging

The idea of sustainable forestry is that the land would never be depleted of its trees. As early as 1936, Weyerhaeuser practiced sustained-yield logging, a practice it continues in the Willamette Valley of Oregon. By logging the forest of its timber and replacing a variety of tree species with a single commercial species, timber companies aim to create a continuing supply of timber. This practice might also result in fewer environmental effects that the logging of virgin or secondary-growth forests.

Critics of this practice say that simply planting your own trees does not necessarily lessen environmental damage, especially to the soil. They say that such monoculture leaves the forests susceptible to disease and that the pesticides used to protect the trees are harmful.

Protests on Both Sides

In some timber states, small property owners have stands of timber they have planted or preserved as a future investment, intended for eventual harvest. Some of these stands can contain unique and irreplaceable old-growth forest. When environmentalists pursue legislation to limit the owners' expectations for the use of this timber, private property activists get involved and open up another front in the logging controversy. When loggers cut old-growth forest, environmental activists increase protest activities such as tree sitting. When timber corporations begin sustainability programs, it is in the context of this entrenched, litigation-heavy controversy.

Roadless Areas and Logging

Many environmental laws protect federal lands and also control multiple uses on them. Roads are a major concern because they erode a "forever wild "status in wilderness areas and can be environmentally detrimental. When roads are built in protected areas so that corporations can log, mine or graze in other areas, recreational users, such as riders of all-terrain vehicles, mountain bikers, and campers on packhorses often begin to use the roads, thus increasing traffic and potentially also the environmental threat.

There are approximately 50 to 60 million acres of roadless areas in the United States, representing about 25 to 30 percent of all land in the national forests; another 35 million acres are congressionally designated wilderness. The rest of the national forests contain 380,000 miles of roads. The vast majority of these rough-cut roads are built by the government to provide access for logging and, to a much lesser extent, mining.

Environmentalists have long accused the Forest Service of simply managing the profits for industry, not protecting the environment. The activists are concerned about watershed protection and restoration and about reforestation. Public opposition to subsidizing logging on public lands by building roads, bridges, and aqueducts in national forests has resulted in budget cuts for the Forest Service.

There is substantial public and political support for permanent protection of the roadless areas. Historically, many people conceived of national parks and wilderness areas as being without any roads. With the increased reliance on automobiles, roads were developed nearly everywhere. Roads greatly affect pristine natural areas, so much so that the need to protect roadless areas is well known. Some experts say environmental policy must establish a ban that protects all roadless national forest areas from road building, logging, mining, grazing, and other activities deemed environmentally degrading.

In 2004 the George W. Bush administration proposed to open up national forests to more logging. The administration had been studying a rule that blocked road construction in nearly one third of national forests designed to prevent logging and other commercial activity. It decided that state governors would have to petition the federal government if they wanted to prevent roads from being build to accommodate logging in remote areas of national forests. The plan covers about 58 million of the 191 million acres of national forest nationwide. The timber industry supported the proposal, maintaining that these decisions are far better made by the local community and state governments than through federal policy.

Conclusion

With the fate of the roadless areas in doubt and industry scientists, environmentalists, and federal agencies intensely studying these issues, the logging controversy will continue. As timber supplies dwindle, governmental agencies may need to take private property to control ecosystem effects from logging. Some logging communities live and die based on local mill operations. Other communities are concerned that their watersheds could be contaminated from runoff or spraying from logging. Logging is also an international environmental issue, and global developments around logging could affect the U.S. controversy.

See also **Environmental Impact Statements; Federal Environmental Land Use; Watershed Protection and Soil Conservation**

CASE STUDY: LOGGING AND ENDANGERED SPECIES

Logging's environmental effect often threatens endangered species such as the spotted owl, which spawned a decade of political and legal controversy. In Oregon and elsewhere in the Pacific Northwest, beginning with George H.W. Bush's campaign for president, the northern spotted owl became the poster bird for the impact of human overpopulation.

A project known as the Sims Fire Salvage timber sale was slated to cut thousands of very large dead trees, called snags, in California's Six Rivers National Forest. Snags serve as homes for all kinds of animals and are considered part of the natural evolution of an old-growth forest. Snags hold fragile soils in place while also providing wildlife habitat.

Around 57 acres of designated critical habitat for the northern spotted owl, marbled murrelet, and coho salmon—all listed as threatened under the federal Endangered Species Act—would have been included in the fire sale. Environmentalists protested that the federal agency overseeing the sale—the U.S. Forest Service—was emphasizing logging projects at the expense of its responsibility to protect fish and wildlife habitat in the public forests.

A federal district court in San Francisco halted the logging project. Since then suggestions for rewriting the National Forest Management Act of 1984, which requires maintaining viable populations of species that indicate the health of an ecosystem, came before judges three times. Beginning in 2000, President George W. Bush's administration systematically worked to increase national forest logging by changing the rules for enforcing environmental laws. Consistently, the courts resisted, noting that the changes proposed did not foster viable populations of endangered species and wildlife.

Shortly after President Barack Obama took office, his administration scrapped a proposal left in the pipeline by the Bush administration that would have boosted logging in Northwest forests and reduced protection for the northern spotted owl. It would have cut the size of critical habitat for the owl and revised recovery plans for the spotted owl to allow logging to increase.

The proposal would have increased the timber harvest by five times. That would amount to only half of what was logged prior to the 1994 Northwest Forest Plan, which dramatically cut logging to protect habitat for owls and salmon. Lawsuits from conservation groups sparked the plan. It reduced logging in Oregon, Washington, and Northern California by more than 80 percent in the name of habitat protection.

This court case and others like it continue to define U.S. environmental policy.

—Debra Ann Schwartz

Further Reading

Alverson, William Surprison, Walter Kuhlmann, and Donald M. Waller, *Wild Forests: Conservation Biology and Public Policy.* Washington, DC: Island Press, 1994.

Berger, John J., *Forests Forever: Their Ecology, Restoration, and Protection.* Chicago: Center for American Places, 2008.

Cox, Thomas R., *The Lumberman's Frontier: Three Centuries of Land Use, Society, and Change in America's Forests.* Corvallis: Oregon State University Press, 2010.

Goble, Dale, and Paul W. Hirt, *Northwest Lands, Northwest Peoples: Readings in Environmental History.* Seattle: University of Washington Press, 1999.

Keiter, Robert B., *Keeping Faith with Nature: Ecosystems, Democracy, and America's Public Lands.* New Haven, CT: Yale University Press, 2003.

Knott, Catherine Henshaw, *Living with the Adirondack Forest: Local Perspectives on Land Use Conflicts.* Ithaca, NY: Cornell University Press, 1998.

MacDonald, Samuel A., *The Agony of an American Wilderness: Loggers, Environmentalists, and the Struggle for Control of a Forgotten Forest.* Lanham, MD: Rowman & Littlefield, 2005.

Rajala, Richard A., *Clearcutting the Pacific Rain Forest: Production, Science, and Regulation.* Vancouver: University of British Columbia Press, 1998.

Roadless Area Conservation, www.roadless.fs.fed.us

M

MEDICAL ETHICS

Joseph Ali

Medical ethics, an offspring of the field of ethics, shares many basic tenets with its siblings: nursing ethics, pharmaceutical ethics, and dental ethics. The definition of medical ethics is itself an issue of some controversy. The term is used to describe the body of literature and instructions prescribing the broader character ideals and responsibilities of being a doctor. Recent sociopolitical and technological changes, however, have meant that medical ethics is also involved with biomedical decision making and patients' rights.

Medical Practitioners and Responsibility

In the first sense of the term, medical ethics consists of professional and character guidelines found in codes and charters of ethics (e.g., the American Medical Association Code of Medical Ethics); principles of ethics (e.g., autonomy, beneficence, nonmaleficence, and justice); and oaths (e.g., the Hippocratic Oath). These formal declarations have the combined effect of expressing an overlapping consensus, or majority view, on how all physicians should behave. It is common to find additional heightened requirements for certain specialties in medicine, such as psychiatry, pain medicine, and obstetrics and gynecology. Moreover, these ethical norms tend periodically to shift as the responsibilities of good doctoring change over time. Such shifts can give rise to heated debates, especially when individuals maintain certain values that have been modified or rejected by the majority.

For example, in the 1980s, the medical profession was forced to consider doctors' obligations in treating HIV/AIDS patients in a climate of discrimination. The American Medical Association (AMA) promulgated ethical rules requiring that physicians treat HIV/AIDS patients whose condition is within the physician's realm of competence. When such rules are violated, boards of medicine, medical associations, hospital and medical school committees, and other credentialing agencies have the difficult task of reviewing alleged breaches and sanctioning misconduct. These professional guidelines begin to clarify the boundaries and goals of medicine as a social good. They attempt to ensure that medical practitioners act humanely as they fight and prevent diseases, promote and restore health, and reduce pain and suffering. The ethical customs found in codes, charters, principles, and oaths form the basis of an entire culture of medicine within the profession.

The practice of medicine is bound by ethical rules for an important reason. In order to fulfill their healing obligation, medical practitioners must often engage in risky procedures interfering with the bodies and minds of vulnerable individuals. Bodily interference, if unconstrained by certain legitimate guiding rules, can be nothing more than assault and battery. Patients must be assured that they will benefit from—or at least not be harmed by—a doctor's care. The establishment of trust is crucial to this end, and once earned, trust marks the doctor–patient relationship.

Perhaps one of the most enduring doctrines in the history of medical ethics is the Hippocratic Oath. The oath dates back to the fourth century B.C.E. and forms the basis of Western medical ethics. It reflects the assumed values of a brotherhood of physicians who charge themselves to care for the sick under a pledge witnessed by the Greek deities. Of great interest to doctors at the time was distinguishing the genuine physician from the fraudulent practitioner. One way in which the oath furthers this goal is by prizing teachers and teaching, requiring that the physician hold his teacher in the "art" of medicine on par with his own parents. It also requires the physician to pledge to help the sick according to his skill and judgment and never do harm to anyone, never administer a deadly drug even when asked to do so, never induce abortion, and never engage in intentional misdeeds with patients (sexual or otherwise). It further requires the physician to keep secret all those things that ought not be revealed about his patients. The good physician, the oath concludes, may enjoy a good life and honored reputation, but those who break the oath shall face dishonor.

To this day, most graduating medical school students swear to some version of the Hippocratic Oath, usually one that is gender-neutral and that departs somewhat from the traditional prohibitions. The mandate of the oath is strong; it directs practitioners to desire what is best for the health of patients. A growing number of physicians and ethicists realize, however, that the Hippocratic Oath and similar ethical codes, though motivational, are inadequate in dealing with the novelties of current practice.

Broader Concerns

Medicine has recently undergone radical shifts in the scientific, technological, economic, social, and political realms, giving rise to artificial life-sustaining devices and treatments, legalized abortions, new artificial reproductive technologies, inventive cosmetic surgeries, stem cell and gene therapies, organ transplantation, palliative care, physician-assisted suicide, and conflicts of interest more powerful than anyone could have predicted just a few decades ago. Many matters previously thought of as "human nature" are continuously being recharacterized to reflect changing knowledge, scientific and otherwise. Medical ethics engages these debates and evaluates the correlative concerns over the definition of death, the moral status of the fetus, the boundaries of procreation and parenting, the flexibility of the concept of personhood, the rights of the dying, and the role of corporations in medicine.

Although physicians' codes play a crucial role in defining the broad parameters of ethical conduct in medicine, in the last few decades sociopolitical demands and market forces have played a much larger role in both shaping and complicating ethics in medicine. Medical ethics then becomes a tool for critical reflection on modern biomedical dilemmas. Ethics scholars and clinical ethicists are regularly consulted when principles or codes appear inadequate because they prescribe unclear, conflicting, or unconscionable actions. Even for ethicists, it is not always obvious what "doing the right thing" means; however, many ethical dilemmas in medicine can be deconstructed using the theoretical tools of medical ethics and sometimes resolved by encouraging decision makers to consider the merits, risks, and psychosocial concerns surrounding particular actions or omissions.

To be sure, clinical ethicists usually do not unilaterally declare right and wrong. But they can ensure that all rightful parties have a fair and informed voice in the discussion of ethically sensitive matters. Medical ethics, as a clinical discipline, approaches decision making through formal processes (e.g., informed consent) and traditional theories (e.g., utilitarianism) that can enhance medical and ethical deliberation. The need for these processes and theories was not just a by-product of technological advances but also a consequence of a movement that has recharacterized the civil status of doctors and patients.

The American Civil Rights Movement of the 1950s and 1960s brought previously denied freedoms to people of color and reinvigorated the spirit of free choice. The unconscionable inferior treatment of marginalized groups was the subject of great sociopolitical concern. Significant legal and moral changes took place both in the ideology surrounding the concepts of justice and equality and in the rigidity of hierarchies found in established institutions of status such as churches, families, schools, and hospitals. Out of the movement came a refreshing idea of fundamental equality based on the dignity of each individual. In the decades that followed, strong criticism arose against paternalism—the

practice of providing for others' assumed needs in a fatherly manner without recognizing individuals' rights and responsibilities. It was no longer acceptable for all-knowing physicians to ignore the preferences and humanity of patients while paternalistically doing what they thought was in their "best interests." Doctors were required to respect patients' autonomy, or ability to govern themselves. With this recognition came a general consensus that patients have the legal and ethical right to make uncoerced medical decisions pertaining to their bodies based on their own values.

Autonomy, now viewed by many as a basic principle of biomedical ethics, often translates in practice into the process of "informed consent." Full informed consent has the potential to enrich the doctor–patient relationship by requiring a competent patient and a physician to engage in an explanatory dialogue concerning proposed invasive treatments. By law, physicians must presume that all patients are competent to make medical decisions unless they have a valid reason to conclude otherwise. If a patient is diagnosed as incapable of consenting, the patient's surrogate decision maker or "living will" should be consulted, assuming they are available and no other recognized exception applies. At its core, informed consent must involve the discussion of five elements:

1. the nature of the decision or procedure
2. the reasonable alternatives to the proposed intervention
3. the relevant risks, benefits, and uncertainties related to each alternative
4. an assessment of patient understanding
5. the acceptance of the intervention by the patient

A physician's failure to abide by this decision process can lead to ethical and legal sanctions.

Scholarly questions often arise regarding the diagnosis of incapacity, the determination of how much information must be shared, the definition of "understanding," and the established exceptions to informed consent (e.g., emergency, patient request not to be informed, and "therapeutic privilege"). It is important for informed consent to be an interactive process and not merely the signing of boilerplate forms. The latter does not take the interests of patients into account, it does not further the doctor–patient relationship, and it can result in future conflict or uncertainty if previously competent patients become incapacitated.

Ethical Frameworks

In addition to doctors, many other parties are involved in caring for the ill and facilitating medical decision making. Relatives, spiritual counselors, nurses, social workers, and other members of the health care team all help identify and satisfy the vital needs of patients. Informed consent is a process that can give rise to meaningful dialogue concerning treatment, but like some other tools of practical ethics, it alone may not provide the intellectual means for deeper reflection about values and moral obligations.

To this end, medical ethics makes use of many foundational theories that help situate values within wider frameworks and assist patients, families, and doctors with making ethical choices. These moral theories are typically reduced to three categories: the deontological (duty-based, emphasizing motives and types of action); the consequentialist (emphasizing the consequences of actions); and the virtue-based (emphasizing excellence of character and aspiration for the good life).

The most influential deontological theory is that of Immanuel Kant (1724–1804). Kant derived certain "categorical imperatives" (unconditional duties) that, in his view, apply to the action of any rational being. Generally speaking, the relevant imperatives are as follows: first, individuals have a duty to follow only those subjective principles that can be universalized without leading to some inconsistency and, second, individuals must treat all rational beings as "ends in themselves," respectful of the dignity and integrity of the individual and never merely treating them as a means to some other end. Despite some philosophical criticism, Kant's revolutionary thoughts on the foundations of morality and autonomy are still very timely.

In contrast to Kantian deontology, an influential consequentialist theory is utilitarianism, which states that the moral worth of an action is determined solely by the extent to which its consequences maximize "utility." For Jeremy Bentham (1748–1832), utility translates into "pleasure and the avoidance of pain"; for John Stewart Mill (1806–1873), utility means "happiness." Utilitarianism offers another popular way to conceptualize right and wrong, but it gives rise to the often asked question of how one might accurately calculate the tendency to maximize happiness.

Finally, virtue-based ethics, principally attributed to the Greek philosophy of Plato and Aristotle, generally holds that a person of good character strives to be excellent in virtue, constantly aiming for the *telos* or goal of greater happiness. In leading a virtuous life, the individual may gain both practical and moral wisdom.

These three basic ethical frameworks maintain their relevance today, inspiring many complementary models of ethical reasoning. For example, medical ethics has benefited significantly from scholarship in theological, feminist, communitarian, casuistic, and narrative ethics. These perspectives either critically analyze or combine the language of deontology, consequentialism, and virtue. Together, theories of ethics and their descendants provide some further means of deconstructing the ethically difficult cases in medicine, giving us the words to explore our moral intuitions.

Medical ethics is now often described within the somewhat broader context of bioethics, a burgeoning field concerned with the ethics of medical and biological procedures, technologies, and treatments. Although medical ethics is traditionally more confined to issues that arise in the practice of medicine, both bioethics and medical ethics engage with significant overlapping questions. What are the characteristics of a "good" medical practitioner? What is the best way to oversee the use and distribution of new medical technologies and therapies that are potentially harmful? Who should have the right

and responsibility to make crucial moral medical decisions? What can individuals and governments do to help increase access, lower cost, and improve quality of care? And how can individuals best avoid unacceptable harm from medical experimentation? Patients, doctors, hospital administrators, citizens, and members of the government are constantly raising these questions. They are difficult questions, demanding the highest level of interdisciplinary collaboration.

Conclusion

In sum, since the days of Hippocrates, the medical profession has tried to live by the principle of *primum non nocere* (first do no harm). This principle has been upheld by many attentive professionals but also betrayed by some more unscrupulous doctors. To stem potential abuses offensive to human dignity and social welfare, medical ethicists carefully consider the appropriateness of new controversial medical acts and omissions. They try to ensure that medical decision makers do not uncritically equate the availability of certain technoscientific therapies and enhancements with physical and psychosocial benefit. Doctors and patients can participate in a better-informed medical discourse if they combine the dictates of professional rules with procedural formalities of decision making, respecting the diversity of values brought to light. Through this deliberative process, individuals will be able to come closer to understanding their responsibilities while clarifying the boundaries of some of the most difficult questions of the medical humanities.

See also **Eugenics; Human Genome Project; Medical Marijuana; Reproductive Technology; Stem Cell Research; Abortion (vol. 3); Euthanasia and Physician-Assisted Suicide (vol. 3)**

Further Reading

Beauchamp, Tom L., and James F. Childress, *Principles of Biomedical Ethics,* 5th ed. New York: Oxford University Press, 2001.

Brody, Howard, *The Future of Bioethics.* New York: Oxford University Press, 2010.

Clarke, Adele E., et al., "Biomedicalization: Technoscientific Transformations of Health, Illness, and U.S. Biomedicine." *American Sociological Review* 68 (April 2003): 161–194.

Daniels, N., et al., *From Chance to Choice: Genes and Social Justice.* Cambridge, UK: Cambridge University Press, 2000.

Devettere, Raymond J., *Practical Decision Making in Health Care Ethics,* 3d ed. Washington, DC: Georgetown University Press, 2010.

Illingworth, Patricia, *Ethical Health Care.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

Imber, Jonathan B., *Trusting Doctors: The Decline of Moral Authority in American Medicine.* Princeton, NJ: Princeton University Press, 2008.

Melia, Kath M., *Health Care Ethics: Lessons from Intensive Care.* Thousand Oaks, CA: Sage, 2004.

MEDICAL MARIJUANA

Joseph Ali

Whether marijuana should be made legally available for doctors to prescribe as a drug for the treatment of certain medical conditions is hotly debated among politicians, lawyers, scientists, physicians, and members of the general public.

A look at the U.S. legal landscape surrounding medical marijuana shows a complex and rapidly changing scene. Fourteen states—California, Alaska, Oregon, Washington, Maine, Hawaii, Colorado, Nevada, Vermont, Montana, Rhode Island, New Mexico, Michigan, and, most recently, New Jersey—allowed its use in 2010. At least a dozen more were considering eliminating criminal penalties for using marijuana for medical purposes. Its therapeutic use is constantly under fresh review. Recently, the American Medical Association (AMA) adopted a resolution urging review of marijuana as a Schedule I controlled substance.

The cannabis plant (marijuana) has been cultivated for psychoactive, therapeutic, and nondrug uses for over 4,000 years. The primary psychoactive drug in the plant is tetrahydrocannabinol (THC)—a molecule that produces a "high" feeling when ingested and, as is most often the case with cannabis, when inhaled in smoke or vapor form. There are hundreds of other chemical components in marijuana, from vitamin A to steroids, making it somewhat unclear how the human body will react physiologically to short- and long-term use of the substance.

Supporters of medical marijuana argue that the drug is acceptable for medical treatment, citing reports and several scientific peer-reviewed studies. There has been considerable interest in the use of marijuana for the treatment of glaucoma, neuropathic pain, AIDS "wasting," symptoms of multiple sclerosis, and chemotherapy-induced nausea, to name a few. The government opposes the move.

The Food, Drug, and Cosmetic Act—a key law used by the U.S. Food and Drug Administration (FDA) in carrying out its mandate—requires that new drugs be shown to be safe and effective before being marketed in the United States. These two conditions have not been met through the formal processes of the FDA for medical marijuana, and it is therefore not an FDA-approved drug.

The Debate

Proponents of medical marijuana argue that the drug would easily pass the FDA's risk–benefit tests if the agency would give the drug a fair and prompt review. One significant hurdle to obtaining FDA approval is the fact that marijuana has been listed as a Schedule I drug in the Controlled Substances Act (CSA) since 1972. As such, it is considered by the U.S. government to have a "lack of accepted safety," "high potential for abuse," and "no currently accepted medical use." Schedule I drugs, however, have occasionally

been approved by the FDA for medical use in the past, with significant restrictions on how they must be manufactured, labeled, and prescribed.

At present, the possession and cultivation of marijuana for recreational use is illegal in all 50 states and in most countries around the world. Further, representatives of various agencies in the current U.S. federal government have consistently stated that there is no consensus on the safety or efficacy of marijuana for *medical* use, and without sufficient evidence and full approval by the FDA, the government cannot allow the medical use of a drug that may be hazardous to health. Some say that the availability of various other FDA-approved drugs, including synthetic versions of the active ingredients in marijuana, make the use of marijuana unnecessary. They claim furthermore that marijuana is an addictive "gateway" drug that leads to abuse of more dangerous drugs and that it injures the lungs, damages the brain, harms the immune system, and may lead to infertility. The use of marijuana for some medical purposes is allowed in Canada, however, though under strict Health Canada regulations.

Proponents maintain that the approved synthetic versions of marijuana are not chemically identical to the actual plant and therefore not as medically beneficial. They further argue that many of the claims of harm either have not been shown to be true or are not at all unique to marijuana but are comparable to the potential side effects of a number of alternative drugs currently on the market. They insist that the government is setting unfair standards for medical marijuana for sociopolitical rather than scientific reasons. They point to a respected scientific report, published in 1999 by the U.S. Institute of Medicine (IOM) and commissioned by the U.S. government through a $1 million grant, which recommends that under certain conditions marijuana should be made medically available to some patients, even though "numerous studies suggest that marijuana smoke is an important risk factor in the development of respiratory disease."

Despite a broad federal stance in opposition to the distribution, possession, and cultivation of marijuana for *any* drug-related use, many U.S. states have enacted their own "medical use" laws. The level of permissibility for marijuana use in state laws varies. Some states, such as California, allow doctors to prescribe marijuana very liberally, whereas others, such as New Mexico, allow access to medical marijuana only for patients suffering pain as a result of a few specific conditions. The enactment of medical marijuana state statutes that conflict with the federal Controlled Substances Act has given rise to lawsuits brought by both sides in the controversy.

The issue has gone so far as to reach the U.S. Supreme Court in the case of *Gonzales v. Raich.* In that 2005 case, the Court ruled that Congress has the authority to *prohibit* the cultivation and use of marijuana in California and across the United States despite laws in California allowing the use of medical marijuana. the court did not require California to change its laws, however. As a result, both the California medical-use statutes and the conflicting federal laws remain in force today. Some doctors in California continue to prescribe medical marijuana through the state's program, and the federal government's Drug Enforcement Administration (DEA) continues to enforce the federal statute in

California against those who choose to prescribe, possess, or cultivate marijuana for medical use. The issue remains largely undecided in law.

In *Gonzales v. Raich,* the Supreme Court did state that Congress could change the federal law to allow the medical use of marijuana if it chose to do so. Congress has voted on several bills to legalize such use, but none has been passed. Most recently, a coalition has petitioned the U.S. government to change the legal category of marijuana from "Schedule I" to a category that would permit physicians to prescribe marijuana for patients they believe would benefit from it. Given recent trends, it is unlikely that the federal government will respond entirely favorably to this petition; it is equally unlikely, however, that supporters of medical marijuana will be quick to abandon their cause.

See also **Medical Ethics; Off-Label Drug Use; Drugs (vol. 3)**

Further Reading

Chapkis, Wendy, and Richard J. Webb, *Dying to Get High: Marijuana as Medicine.* New York: New York University Press, 2008.

Controlled Substances Act, U.S. Code Title 21, chapter 13.

Federal Food, Drug, and Cosmetic Act, U.S. Code Title 21, chapter 9.

Fielding, Amanda, ed., *Cannabis Policy: Moving Beyond Stalemate.* New York: Oxford University Press, 2010.

Gonzales v. Raich (previously *Ashcroft v. Raich*), 545 U.S. 1 (2005).

Hoffman, D., and Webber, E., "Medical Marijuana and the Law." New England Journal of Medicine 362, no. 16 (2010): 1453–1457.

Joy, Janet Elizabeth, Stanley J. Watson, and John A. Benson, *Marijuana and Medicine: Assessing the Science Base.* Institute of Medicine Report. Washington, DC: National Academies Press, 1999.

MINING OF NATURAL RESOURCES

Robert William Collin and Debra Ann Schwartz

Mining is the process of extracting ores and other substances from the earth. It can have enormous and irreparable environmental impacts, especially with technological improvements in the industry. These impacts affect national parks, indigenous peoples, and nearby communities. In the United States, many large mines are on land leased from the government to private corporations. Some communities are dependent on the mining industry, such as those around some coal mines.

Background

The 1872 Mining Law allowed the mining of valuable minerals on federal land with minimal payments to the U.S. government. Its purpose was to encourage westward expansion of European settlement. Some of the oldest roads in the West are old mining

roads. Mining for gold, silver, and other minerals was extremely dangerous work in the late 1800s. The mines were very warm, collapsed frequently, were subject to fires and floods, and were filled with toxic gases. Long-term leases, low-cost sales, and other arrangements allowed mining interests to develop a basic natural resource in the West. While they were doing so, some of the basic road infrastructure was developed. The profits for these government-protected risks is one of the controversial issues. Critics of the 1872 Mining Law contend that the profits generated by mining federal lands are very large and no longer need any government subsidization. Environmental concerns about roads generally, and about the increasing scale and environmental impacts of mining and loss of habitat, enter the battleground.

Speculation on Federal Lands: Environmental Impacts and Controversies

Mining is restricted by local land-use regulations, state environmental laws, and federal environmental rules and regulations. Many more restrictions are imposed on the timing of mining activities on federal land. Generally, environmentalists would like to see more mitigation and cleanup of environmental degradation. Many environmentalists would like to see absolutely no mining in areas where there are endangered species. In terms of land speculation with federal mineral rights leases, the issue is how long the lease can be held without mining. This makes it difficult for things such as conservation easements or for any private property owner to simply not develop his or her mineral rights. It is a use-it-or-lose-it proposition that works to increase mining and the environmental impacts of mining. Diligence requirements in the leases limit how long a lease can be held without any development and how long it can be held after production is shut down. Moreover, regular expenditures are required by the terms of the lease. Environmentalists and others maintain that those restrictions are not rigorous enough to constrain development. Others think that restrictions are a good idea but that existing restrictions are more than adequate.

Sharing the Wealth: What to Do with Mining Revenues

Mining fees are distributed primarily to residents of sparsely populated western states because Congress allocates half of gross mining receipts to the state in which the mining occurs. That is one reason why many state environmental agencies and communities in these states support the mining industry. Many environmentalists would like to use some of that money to restore the ecology to its premining ecological condition.

Sustainability and Mining

Many question whether mining can be described as sustainable. Of all the earth and ore disturbed for metals extraction, only a small amount is actual ore. For example, in

SURFACE MINING

The term *surface mining* refers to the removal of material, such as coal or tar sand, from veins lying at or near the earth's surface rather than deep inside it. In this form of mining, there is no need to drill a shaft or bore hole, because the substance being mined can be excavated more or less directly from the surface. There are three main varieties of surface mining. In *strip mining,* a layer of earth lying immediately above a vein of coal, for example, is removed by giant excavating machines and discarded to provide access to the coal, which is then mined directly. Illinois initiated strip mining in the United States in the 1850s. It turned the state's lush land where the Kickapoo Native Nation lived into ash and spoil piles, stagnant mine ponds and pits. Machines clear-cut forests in the Prairie State and detonated explosives across the Illinois landscape to remove anything overlying the mineral seams. Eventually, the practice also cost the miners their jobs, leaving them with polluted communities and devastating the region for any other economic development, since the environment had been defiled. Development attempts on reclaimed mine sites have included prisons, small-town airports, golf courses, and waste disposal sites for sludge.

In *open-pit mining,* material is extracted from the earth by means of a vast pit, up to two miles wide and a half-mile deep, dug at the surface. Open-pit mines lay claim to large areas and leave in their wakes toxic residues including sulfides, created during the ore processing stage. The Berkeley Pit in Butte, Montana, which closed in 1982 after operating for nearly 30 years, is now a toxic lake filled with heavy metals and acid compounds. Such toxins can and do leach into the surrounding soils and pose risks to aquifers, or ground water supplies. Nevertheless, some open-pit mines have been successfully rehabilitated following their closure.

Mountaintop removal is a third form of surface mining. Companies such as Massey Energy, the largest producer of Central Appalachian coal, blast away the tops of mountains to gain access to veins of coal. Once this has been done, the company will loosen the coal from its bed with chemicals such as arsenic, which often runs into the rivers and soaks into the soil, creating plumes that sometimes move into aquifers. This process creates excessive mining waste, which fills in nearby valleys, rivers, mountain streams, hollows, and other ecosystems.

The environmental impact of surface mining was described in detail in a 2010 report in the journal *Science.* No way has been found to completely restore the ecological balance left by this kind of mining. Valley fills from explosions frequently bury the headwater streams from which rivers originate. The result is permanent ecosystem loss. In addition, the loss of large tracts of deciduous forest through surface mining threatens several endangered species. It will take a lot of effort by the best minds available to solve the riddle of how to supply needed minerals and other materials while not permanently damaging the environment.

1995, the gold-mining industry moved and processed 72.5 million tons of rock to extract 7,235 tons of gold. The rest, 99 percent, was left as waste. Mine tailings can be hazardous and build up quickly in the host community. Cleanup of radioactive uranium tailings is a significant environmental issue. Some Native American environmental

justice issues revolve around the cleanup of low-level radioactive waste, often piles of mine tailings.

An initial environmental question is whether it is acceptable to mine at all. For example, it is held that in some instances, even an operation with state-of-the-art environmental design should simply not be built because it is planned for a location that is not appropriate for mining. Environmental critics claim that mining companies want to engage sustainability only in terms of how to mine, not whether to mine.

Community Concern

While nations and multinational corporations profit from mining operations around the world, local communities face the resulting environmental impacts. Mining communities have begun to exercise their right to prior informed consent to mining operations.

The concept of prior informed consent involves the right of a community to be informed about mining operations on a full and timely basis. It allows a community to approve an operation prior to commencement. This includes participation in setting the terms and conditions and addressing the economic, social, and environmental impacts of all phases of mining and postmining operations. Some environmentalists oppose this type of community rule because communities' short-term economic interests may outweigh long-term environmental implications. They wonder how well all the terms and conditions in the prior informed consent would really be enforced.

Conclusion

Communities, environmentalists, mining companies and their employees, and government all decry the environmental impacts of mining. Yet consumer demand for products made from mined materials and a rapid increase in technology allow the scope and scale of mining to increase. This will increase environmental impacts and also future controversy.

See also **Coal; Cumulative Emissions; Environmental Impact Statements; Water Pollution; Sustainability (vol. 1)**

Further Reading

Burns, Shirley Stewart, *Bringing Down the Mountains: The Impact of Mountaintop Removal Surface Coal Mining on West Virginia Communities, 1970–2004.* Morgantown: West Virginia University Press, 2007.

Crow, Peter, *Do, Die, or Get Along: A Tale of Two Appalachian Tows.* Athens: University of Georgia Press, 2007.

Crowder, Ad'aele A., Earle A. Ripley, and Robert E. Redmann, *Environmental Effects of Mining.* Boca Raton, FL: CRC Press, 1996.

Hartman, Howard L., and Jan M. Mutmansky, *Introductory Mining Engineering.* New York: Wiley, 2002.

LeCain, Timothy, *Mass Destruction: The Men and Giant Mines that Wired America and Scarred the Planet.* New Brunswick, NJ: Rutgers University Press, 2009.

U.S. Department of the Interior, Office of Surface Mining, Environmental Assessments, www.osmre.gov/pdf/streambufferea.pdf

MISSILE DEFENSE

Steven T. Nagy

Ever since the advent of long-range weapons, militaries have been concerned with defending themselves against objects falling from the sky. Developing technologies in the 1950s brought a new threat in the form of ballistic missiles. Governments and their armed forces sought defensive measures, culminating recently in the United States in a National Missile Defense (NMD) program. There are three main concerns with NMD: destabilization, functionality, and who should be in charge of decisions about its development and deployment. The discussion currently centers on general versus immediate deterrence and international conflict.

Historical Background

The first attempt at missile defense in the United States came in the late 1950s with the Nike-Zeus interceptor. Because the United States lacked advanced guidance technology, the only reasonable path to interception lay in arming the defensive missile with a nuclear warhead. This system was unsuccessful and was replaced in 1961 by the Ballistic Missile Boost Interceptor (BAMBI). Housed in satellite platforms, BAMBI would intercept enemy missiles shortly after launch (the "boost" phase) by deploying a large net designed to disable intercontinental ballistic missiles (ICBMs). Again, because of technical difficulties, it was never deployed.

In 1963, U.S. Defense Secretary Robert McNamara unveiled the Sentinel program. This program differed from its predecessors by layering defensive missiles. Made up of both short- and long-range interception missiles and guided by radar and computers, the system would protect the entire United States from a large-scale nuclear attack. Political concerns about the destabilizing influence of this system, along with the technical difficulties involved in tracking and intercepting incoming ICBMs, ensured that the Sentinel fared no better than its predecessors.

In 1967 the Sentinel was scaled back and renamed Safeguard. With this reduction in scale, the entire United States could not be protected, and Safeguard was installed only around nuclear missile sites. This enabled launch sites to survive a first strike and then retaliate. For the first time in U.S. missile defense theory, survival of retaliatory capability outweighed the defense of American citizens.

While the United States worked at developing NMD systems, the USSR did the same. It became obvious to the two superpowers that this could escalate into a defensive

arms race. In an effort to curb military spending, the two countries agreed in 1972 to limit their defensive systems, creating the Anti-Ballistic Missile (ABM) treaty. Under this agreement, each country could deploy one defensive system. The United States chose to defend the Grand Forks Air Force Base in North Dakota and the USSR chose Moscow.

In 1983 President Ronald Reagan revived the NMD debate by announcing the Strategic Defense Initiative (SDI), known derisively as "Star Wars." Although previous missile defense systems had used ground-based control systems, Star Wars called for an elaborate series of nuclear-pumped x-ray laser satellites to destroy enemy missiles. This program would provide complete protection to the United States in the event of an all-out attack by a nuclear-armed adversary. Unfortunately, the technical problems were too great, and with the collapse of the USSR and the end of the Cold War, the program was canceled.

Recent Developments

Under the administration of George W. Bush, SDI morphed into NMD. This project was less ambitious than SDI, and its goal was the defense of the United States against nuclear blackmail or terrorism from a "rogue" state. The system consisted of ground-based interceptor missiles in Fort Greely, Alaska, and at Vandenberg Air Force Base in California. By 2005, there had been a series of arguably successful test launches from sea- and shore-based launchers against a simulated missile attack. (The results of these tests are themselves debated.)

As with its predecessors, there were three current concerns with the NMD program: destabilization, functionality, and who should be in charge of decisions about its development and deployment.

Under the doctrine of Mutually Assured Destruction (MAD), both sides avoided launching missiles because the enemy would respond in kind. Neither side could win; therefore neither would go to war. Developing an effective NMD would eliminate the retaliatory threat, destabilizing the balance of power by making a nuclear war winnable and thus increasing the chance that one might occur. Even the fear that one side might field such a system could cause a preemptive strike.

The concept a successful NMD assumes a system that works. To date, missile defense systems have posed numerous technical problems and have never achieved true operational status. Critics of NMD argue that this current system has fared no better than others, whereas supporters claim that the successful tests of the recent past show that the technology is viable.

Finally, there is the question of who is in charge. Given post-9/11 security issues, the main concern is defending against launches from countries that have possible links to terrorists. As the developer of NMD, the United States would want the final say in its deployment and use. Unfortunately, to maximize interception probabilities, NMD

requires sites in other countries, mostly members of the North American Treaty Organization (NATO). Poland and the Czech Republic, because of their position along possible missile flight paths, figured prominently in U.S. strategies under President Bush. The administration's plan called for up to 54 missiles to be based in Poland and the controlling X-band radar to be sited in the Czech Republic.

These and other NATO countries, however, believe that participating in NMD makes them into potential targets of both terrorists and countries unfriendly to NATO. They feel they should have the authority to launch missiles in their own defense should the need arise. In fact, as a result of the plans to deploy NMD in Eastern Europe, tensions between the United States and Russia grew. Both in order to relieve these tensions and confront the economic and technical difficulties of NMD, the incoming Obama administration announced that it would not be going forward with deployments in Eastern Europe and had begun investigating alternatives to NMD generally.

Conclusion

NMD remains an unproved system. Despite over 50 years of work, the probability of successful ballistic missile defense remains low. Add to this the concerns over destabilization, costs, and the utility of the system in light of the changing landscape of warfare in the 21st century (where "small wars" and tactical weapons are the norm), and the future of NMD is far from certain. A growing number of skeptics and realists are beginning to regard NMD as just another entry in a long list of failed or cancelled projects.

See also **War and the Economy (vol. 1)**

Further Reading

Cimbala, Stephen J., *Shield of Dreams: Missile Defense and U.S.-Russian Nuclear Strategy.* Annapolis, MD: Naval Institute Press, 2008.

Lettow, Paul Voerbeck, *Ronald Reagan and His Quest to Abolish Nuclear Weapons.* New York: Random House, 2005.

Mockli, Daniel, "U.S. Missile Defense: A Strategic Challenge for Europe." *CSS Analyses for Security Policy* 2, no. 12 (2007): 1–3.

O'Hanlon, Michael E., *Budgeting for Hard Power: Defense and Security Spending under Barack Obama.* Washington, DC: Brookings Institution Press, 2009.

Peoples, Columba, *Justifying Ballistic Missile Defense: Technology, Security, and Culture.* New York: Cambridge University Press, 2010.

Quckenbush, Stephen L., "General Deterrence and International Conflict: Testing Perfect Deterrence Theory." *International Interactions* 36, no. 1 (2010): 60–85.

N

NATIONAL PARKS AND CONCESSIONS

Robert William Collin and Debra Ann Schwartz

National parks are predominantly in the western United States, where vast tracts of land were set aside and protected as settlers and development pressed beyond the Mississippi River. Significant national parks and monuments exist in every state. An old park service policy of granting private concession monopolies, without open bidding, caused uproars about injustice early on. The U.S. National Park Service (NPS) also operated concessions in the form of lodging, guides, and so forth as the parks were created. In many areas the national parks provided needed jobs and tourist revenue, especially during the Great Depression of the 1930s. Still a revenue corridor to the local economy, most forms of recreation—including snowmobiling, river rafting, skiing, and the use of all-terrain vehicles—impact the environment and have been argued as activities in conflict with the overall mission of the NPS.

The U.S. national park system is often the focus of environmental controversies. One current example is the extent to which scenic preservation and environmental quality in the parks is surrendered in favor of money that concession stands contribute to keep the parks open. Concessions, for example, require electricity. Bringing electrical lines into the parks has an environmental and scenic impact. Consequently, some environmentalists oppose the stands as business operations in national parks.

Emerging Issue: Electricity

The Energy Policy Act of 2005 gave the U.S. secretary of energy the authority to designate public and private lands as National Interest Electric Transmission Corridors

(NIETCs). Two regions served as the starting point for creating the corridors: the southwestern United States, passing through southern California, Arizona, and Nevada; and the Mid-Atlantic states, through Pennsylvania, New Jersey, New York, Virginia, West Virginia, Maryland, and Washington, D.C.

Weaker environmental impact assessments are allowed for projects within these designations, which pass through five national parks, at least 13 national wildlife refuges, and many other nature preserves. Environmentalists argue that the designations clash with the National Wildlife Act. Concessions almost always need electrical power; as they expand, so too will their need for electrical energy. When the source of the electrical energy is a coal-fired power plant, environmental activists have publicly chided the government for supporting nonrenewable energy sources that pollute the environment instead of cleaner and more sustainable fuel sources, such as solar power.

Taking sides with environmental activists yet presenting a different argument, landowners from surrounding communities have also objected to the corridors, citing documented impacts to livestock health from waves of electricity. As well, there is similar research indicating that electromagnetic radiation causes negative health effects in people and plants. This aspect of the concessions controversy will expand as more projects are proposed and begun in designated areas.

Many requests for concessions were denied amid this controversy after the 2005 law. However, in early December 2007, the Department of Energy granted rehearings to further consider arguments from all who filed timely requests in the Mid-Atlantic and Southwest corridors. In January 2008, eleven environmental organizations from both areas filed suit against the Department of Energy (DOE) over its corridor designations. Led by the National Wildlife Federation and the Piedmont Environmental Council, the groups challenged the designation as violating the National Environmental Protection Act and Endangered Species Act by failing to study the potential harmful impacts of the corridor on air quality, wildlife, habitat, and other natural resources. They also restated that the NPS is mandated to conserve the scenery in national parks, and that having energy corridors run through them is inappropriate. According to the suit, DOE overstepped what Congress called for in the 2005 Energy Policy Act and designated lands that lie outside of the identified congestion area. Three months later, on March 6, 2008, the DOE issued an order denying all applications for rehearing. As of May 2010, corridors in Grand Teton National Park in Wyoming, Hot Springs National Park in Arkansas, and Volcanoes National Park in Hawaii awaited approval.

In addition to health and fuel source concerns, local control of land also is part of this issue. Because federal law supersedes state and local land-use controls when it is more strict, communities tend to fight federal land grabs. In the many jurisdictional controversies around the fear of federal encroachment on states' rights, the issue of concessions to local residents and their businesses is one of the most significant. Generally, compromises have to be made on both sides—sometimes following a public hearing.

Despite the congressional mandate to protect the scenic beauty and environmental quality (about which the Transcendentalists and American Romantics waxed poetic), entrepreneurs have long sought to create recreational ski areas in Colorado's Rocky Mountain National Park, for example, one of the oldest national parks. Park Service philosophy has maintained that all outdoor sports, including winter sports, should be encouraged there. Early powerful park administrators believed that to get appropriations from a parsimonious Congress they had to publicize the recreational potential of the park system. Others contended that visitors should be allowed to use the parks to the fullest no matter what the environmental impacts. As a result, ski lifts were eventually built in the Mt. Rainier, Sequoia, Yosemite, Lassen Volcanic, and Olympic national parks. To implement these directives in Rocky Mountain National Park without marring the scenery became the special problem of more than one superintendent, and the fact that a winter sports complex was built there suggests that the Park Service was bowing to political pressures.

Perennial Issue: Campgrounds

Park officials regularly grapple with controversies surrounding campgrounds and inholdings—privately owned land contained within a national park. The existence of both is considered ecologically unsound by some, since they irrevocably alter the environment for wildlife. Thus it seemed logical to buy out privately developed lands within areas acquired for national parks. To replace developed areas with campgrounds was a politically realistic policy. Pressures from politicians and chambers of commerce demanding more campgrounds, roads, and trails are ever present for many park administrators. Allowing campgrounds within national parks also presented a business challenge for hotel, inn, and motel owners who could not compete profitably with such campgrounds.

Another Environmental Impact: Noise Pollution

Noise generated by human activities is another ongoing issue. Large recreational vehicles often need to run generators, so their use in large campgrounds tends to compromise the wilderness experience. Some communities want to expand their airports to take economic advantage of the presence of a national park, thereby also contributing to noise pollution. Larger airports mean bigger planes and more tourist revenue. They also mean extending the environmental impacts of noise and air pollution into the community. Some wonder what existing land-use policies involving concessions will bring in the future.

Controversy and litigation have increased in the case of parks where visitors hear touring planes and helicopters, snowmobiles, watercraft, off-road vehicles, and even the NPS's own equipment and concessions. Members of environmental groups, off-highway vehicle groups, the air tourism industry, tribal nations, and some of the major government

agencies that oversee public lands all spar over noise control. Will the national parks allow racecar driving, manufacturing industries, or tall office buildings?

Conclusion

As park users increase their demand for the national park experience, conflict and controversy are increasing as well. Strong economic and political pressure from logging, mining, and ranching opportunists could arise once concessions for in-park businesses are made. The NPS's mission clashes with many of the special interests that drive economic pressure for concessions stands; it also collides with ranchers, for example, who resent wildlife reintroduction programs—including for wolves, which eat livestock, and grizzly bears.

It is likely that national parks will continue generate strong and controversial issues around noise, electricity lines, and other activities disrupting wildlife and issues that relate to businesses operating concessions in the parks. Ecosystem risk assessments, endangered species, and cumulative impacts are themselves all environmental controversies that are heightened within the confines of a national park.

See also **Federal Environmental Land Use; Logging; Mining of Natural Resources; Stock Grazing and the Environment; Wild Animal Reintroduction**

Further Reading

Bowersox, Joe, *The Moral Austerity of Environmental Decision Making.* Durham, NC: Duke University Press, 2002.

Buckley, Ralf, Catherine Pickering, and David Bruce Weaver, *Nature-Based Tourism, Environment and Land Management.* London: CABI Publishing, 2003.

Fretwell, Holly Lippke, *Who Is Minding the Federal Estate? Political Management of America's Public Lands.* Lanham, MD: Lexington Books, 2009.

Machlis, Gary E., and Donald R. Field, *National Parks and Rural Development: Practice and Policy in the United States.* Washington, DC: Island Press, 2000.

National Park Service Concession Program, www.concessions.nps.gov

National Park Service Concessions Assessment, www.whitehouse.gov/OMB/expectmore/detail.10003716.2005.html

National Parks Conservation Association, www.npca.org

National Park Service, History, www.cr.nps.gov/history/hisnps/NPSHistory/timeline_annotated.htm

O'Brien, Bob R, *Our National Parks and the Search for Sustainability.* Austin: University of Texas Press, 1999.

U.S. Department of Energy, National Interest Electric Transmission Corridors and Congestion Study, 2010, http://nietc.anl.gov

Vaughn, Jacqueline, *Conflicts over Natural Resources: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

The Yellowstone Case, 2009, http://www.edmonds-institute.org/yellowstone.html

NATURE VERSUS NURTURE

Jennifer Croissant

"Nature versus nurture" is the popular phrase depicting the debate between proponents of sociobiology (biological or genetic determinism) and proponents of behaviorism (social determinism) over the reasons adult humans come to behave the way they do.

In his 1930 classic *Behaviorism,* John B. Watson (1878–1958), father of behavioral psychology, wrote perhaps the strongest formulation of a view of nurture, with development through learning and environment represented as the determinant of human possibilities. He said, "Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select—doctor, lawyer, artist, merchant-chief and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors."

In opposition to such sentiments, especially after the foundations of inheritance changed with the discovery of DNA, other scientists looked for physical rather than social explanations for human characteristics and achievements. Sociobiology (biological or genetic determinism) is a field in which human behaviors are studied to clarify how they might emerge from evolutionary mechanisms. For example, altruism (in which an individual sacrifices for a greater good at the expense of his or her own genetic success) may be explained as advancing the genetic fitness of a group. Specifically, one's genes are often shared with relatives; therefore if a behavior advances the evolutionary success of the larger group, the genes are propagated even if not by a specific individual. Other behaviors then are considered based on similar assessments of individual and group fitness and thus the ability to pass on genes to subsequent generations.

Genetic Markers

Sociobiology rests on ideas about genetic determinism, a theory that attempts to link complex behaviors to genes at more individual levels. Attempts have been made to connect alcoholism, homosexuality, mental illness, and many other behaviors and conditions to specific genetic mechanisms. Despite occasional features in the popular media, however, careful scrutiny of genetic attributions rarely hold up; either the statistical measures are re-examined and dismissed by other scholars or (more frequently) dismissed when a broader population is sampled inconclusively for a specific genetic marker.

Despite current problems, certain genetic diseases are still good models for genetic determinism. For example, Huntington's disease is a heritable neurological illness marked by loss of motor control and physical and psychological decline. It is unambiguously linked to a kind of mutation (a repeated amino acid sequence) on chromosome four. Even that mutation has variations in the number of repeated sequences, and the severity

and progression of the disease is strongly, though not exactly, linked to the scope of the mutation. Similarly, although BRCA1 and BRCA2 (breast cancer 1 and 2, early onset) genes are statistically linked to increased risk of breast cancer in women, the detection of either gene in any particular woman does not necessarily mean that she will definitely develop breast cancer. This leads to a great deal of uncertainty and anxiety for women who carry these genes because they have to consider preventive treatments such as drugs, which have serious side effects, or even removal of the breasts to try to avoid cancer. It is further complicated by the fact that many breast cancers are not linked to the BRCA markers, meaning that being screened negatively for these markers does not guarantee that any woman so screened will not eventually develop breast cancer. Thus, for many diseases, such as breast cancer, such a focus on genetics is sometimes seen as a distraction from research on environmental contributions—such as exposure to toxins or dietary factors that might cause breast cancer—because it focuses attention on cure rather than prevention.

Although the popular appeal of genetic determinism is hard to counteract, the attribution of apparently straightforward medical conditions to genetic inheritance leads to a critique of "nature" by the proponents of social determinism. Twin studies, for example, are taken to "prove" the heritability of many things, from weight and height to spirituality or political affiliation. One of the most important factors, probability, is rarely considered. Suppose, for example, that a researcher found that twins who were separated at birth and now live 150 miles apart in Iowa both drove red pickup trucks and liked a particular brand of beer and hot dogs. He might see these facts as proof that the observed behaviors were caused by genes. However, one must also sort out the probability of any two adult men driving red trucks and liking particular brands of beer and hot dogs. In Iowa, that may not be a very surprising correlation. If one of our twins had been raised in Ireland rather than Iowa, nearer his twin, and liked a particular beer (rather than stout) and hot dogs (rather than haggis) and drove a red pickup truck, then that might be a more interesting finding. That is, environments are often assumed to be completely dissimilar, neglecting the facts of broadly shared culture and parenting practices. There are no systematic or agreed-upon measures of "environment" in twin studies; therefore so results are necessarily inconclusive.

It is clear that genetic theories of characteristics such as intelligence or athletic ability can easily be associated with racism and eugenics and can have complicated political and social justice implications. Stereotypes such as "white men can't jump" or "blacks can't do math" become taken as facts rather than as phenomena that may or may not be true or that may have social explanations ranging from the demographic to the psychological. For example, if people believed that white people cannot jump, white people might not put themselves in situations where they would have a chance to improve their jumping, thus creating a self-fulfilling prophecy that is only superficially true, and so on.

Society and Social "Types"

Social determinist explanations also have their racist counterparts, however. Stereotypes about "the black family" are an environmental, rather than genetic, explanations of the dynamics of urban black poverty. Adopting a view that something such as homosexuality is a product of nature (genes in contemporary theories) can be an attempt to argue that because it is not chosen and is a natural part of human existence, it therefore should not be subject to discrimination. A theory of homosexuality as genetic, however, does not prevent people from discriminating: skin color is natural, and yet people still use it as a basis for discrimination. Thus a genetic theory does not prevent continued pathologization, and a search for "treatments" or "cures" may in fact enhance efforts to try to eliminate a behavior or kind of person. Although theories about nurture or the social construction of behavior and identity are often interpreted as more socially progressive, they are also not immune to producing justifications for discrimination or medical intervention.

In addition to ambiguous political outcomes, theories of nature or nurture both share a tendency toward a fundamental attribution error or typological thinking. That is, a behavior is extrapolated to be an expression of the "true self" or of a "type" of person distinct from other types. For example, there is little correlation between whether or not people keep their rooms neat and also turn in neat homework. Yet most people will examine either the state of the room or the homework and infer that the one matches the other. In terms of human behaviors such as homosexuality, many persons engage in same-sex behaviors yet do not self-identify as homosexual. Not only can sexual orientation change across the life course but, in addition, the context (ranging from the local, such as prisons, to the historical, such as Sparta in Ancient Greece) shapes the meaning, frequency, and persistence of the behavior. These things greatly complicate the attribution of either a genetic foundation or an environmental "cause" that holds across time or context.

Conclusion

In an obvious sense, nature matters: children generally look like their biological parents, and populations of people do have common features, whether facial features, skin color, or tendencies toward risk factors in illnesses. But because genes require expression to have their effects, it is impossible to separate nature and nurture in any meaningful sense. Theories such as dynamic systems theory are proposed to explain the complexity of human development, considering both the genetic and biological features and their interaction within environmental contexts. For example, many genes contribute to height, but the expression of those genes is strongly influenced by nutrition and exercise.

There is no way to completely untangle the multiple factors affecting human characteristics and behavior except in the broadest statistical sense, which makes it extremely difficult to infer anything about a specific individual. Both researchers and the lay public,

however, will continue to try to single out either nature or nurture as determining factors for behavior, illness, and identity because these theories support important political narratives and projects that shape the distribution of goods, services, and social justice in contemporary culture.

See also **Eugenics; Gender Socialization (vol. 3); Mental Health (vol. 3)**

Further Reading

Fausto-Sterling, Anne, *Sexing the Body.* New York: Basic Books, 2000.

Gillette, Aaron, *Eugenics and the Nature-Nurture Debate in the Twentieth Century.* New York: Palgrave Macmillan, 2007.

Parens, Erik, et al., eds., *Wrestling with Behavioral Genetics: Science, Ethics, and Public Conversation.* Baltimore: Johns Hopkins University Press, 2006.

Ridley, Matt, *Nature via Nurture: Genes, Experience, and What Makes Us Human.* New York: HarperCollins, 2003.

Watson, John B., *Behaviorism,* rev. ed. Chicago: University of Chicago Press, 1958.

Wilson, E. O. *Sociobiology: The New Synthesis,* 25th anniversary ed. Cambridge, MA: Belknap/Harvard University Press, 2000.

Wright, Lawrence, *Twins: And What They Tell Us about Who We Are.* New York: Wiley, 1997.

NUCLEAR ENERGY

Robert William Collin

Nuclear energy has always been controversial because of its long-term environmental impacts and community concerns about the safety of nuclear plants. In addition, its use and threat of use in war creates a powerful aura of fear around this energy source. Other controversial issues related to environmental regulation of industry, such as disclosure of chemicals and audit privileges, attract much more attention from the public when the industry is nuclear power. Many countries (e.g., France) increasingly rely on this form of energy.

In the United States, no nuclear plants have been built since the late 1970s, although U.S. utilities have become much more commercially aggressive about nuclear energy. Some environmental groups have supported nuclear energy as less environmentally harmful than petrochemical energy. Owners of existing plants are seeking renewal of operating licenses and are getting ready to upgrade power output or restart closed reactors. Some observers predict that during the next few years there could be applications for 10 or more new U.S. reactors producing approximately 40,000 megawatts of energy.

Several events form the basis of this controversy. They have shaped the public's image of risk and of the credibility of nuclear risk assessments and assessors.

- During the 1970s, Pennsylvania's Three Mile Island experienced an overheated reactor core.
- During the 1980s, the Soviet Union's Chernobyl plant experienced an uncontained meltdown, the worst such accident ever to have occurred anywhere in the world.
- The U.S. Nuclear Regulatory Commission has issued formal alerts or declared site emergencies at least 10 times between 1979 and the present.
- Since September 11, 2001, public fear has increased regarding security risks at nuclear sites.

The risk of a nuclear meltdown with a potentially devastating range of human and ecological impacts and the general issue of plant security underscore modern tensions around nuclear energy.

The United States Today

Today, about 103 nuclear reactors are operating in 31 states. They generate about one fifth of the nation's electricity. Major expansions are planned, and each will be an issue in this controversy. With this growth comes a much closer scrutiny of the environmental costs and benefits of nuclear energy by environmentalists, government agencies, and competing energy sources.

In general, today's market forces support nuclear power. The electricity industry is being deregulated, allowing consumers and their cities to avoid the forced contracts of hydroelectric power companies. Existing nuclear plants appear to be a low-cost alternative energy source. Many power plants run on coal or petrochemicals, with high levels of emissions into the air. This has a powerful impact on global warming and climate change. A main cause of climate change, global warming, air pollution, and acid rain is carbon dioxide emissions. Nuclear reactors do not emit any carbon dioxide. Industry proponents tout the new and improved safety of modern plants to alleviate regulator and consumer fears. In the United States, electricity produced by nuclear power plants has been greater than that from oil, natural gas, and hydropower. Coal accounts for 55 percent of U.S. electricity generation. Nuclear plants generate more than half the electricity in at least six states. According to industry statistics, average operating costs of U.S. nuclear plants dropped substantially during the 1990s and 2000s. Expensive downtime for maintenance and inspections has been steadily reduced. Licensed commercial reactors generated electricity at a record-high average of more than 87 percent of their total capacity in the year 2000, which indicates increasing demand.

Although nuclear energy is gaining international and domestic appeal in the marketplace, environmentalists and those living near plant sites remain concerned. They are concerned about human and environmental impacts due to exposure from transit of nuclear waste, spills, and other environmental sources. Nuclear environmental impacts

are among the most powerful ones humans can create, and such effects can destroy any resiliency in a given ecosystem. They last a very long time and can move through the soil and water to contaminate other parts of an ecosystem. Radiation may remain unstable and lethal for 100,000 years. Nuclear waste is currently stored in holding pools and casks alongside the power plants. Some people have expressed concern with leaking casks. Radiation is a potential problem in every phase, from mining the uranium to operating the plant and finally disposing of the waste. Low-level radioactive waste is also the source of a pressing environmental controversy.

Cleaning up severe environmental problems at U.S. nuclear weapons production facilities alone is expected to cost at least $150 billion over the next several decades. Cleaning up old nuclear energy plants is another large expense. Each of these projects is followed by community controversy about exposure and adequacy of cleanup.

New Power Plants

Because of the powerful environmental impacts of nuclear energy, this controversy will persist. There is as yet no solution to the waste problem. Old power plants generate public concern about safety. Building new plants will be expensive. If recent history is a reliable indicator, cost overruns can be expected that will affect the price of electricity. Also, the will probably be community resistance, which can effectively block the building of new nuclear power generators. Community resistance can take the form of refusing to finance any aspect of design, construction, or operation. When the Washington Public Supply System tried to build five nuclear power plants during the mid-1970s, environmental lawsuits for violations of the required environmental impact statements and community resistance to taking or paying contracts from the Bonneville Power Administration led to the plan's collapse. More than $3 billion of default on taxpayer bonds then occurred, resulting in 43 lawsuits in five states. Many investors lost substantial sums of money. The courts were clogged with long, complicated lawsuits involving municipal finance as well as the environmental lawsuits that followed the project.

Thermal Pollution Controversy

Thermal pollution, the addition of heated water to the environment, has recently come to public attention. In England the largest single industrial use of water is for cooling purposes, while in the United States in 1964, some 49,000 billion gallons of water were used by industrial manufacturing plants and investor-owned thermal electric utilities. Ninety percent, or 44,000 billion gallons, of this amount was used for cooling or condensing purposes primarily by electric utilities. With the increased demand for greater volumes and less expensive electric power, the power companies are rapidly expanding the number of generating plants, especially nuclear-powered plants.

To the power companies, nuclear plants offer many advantages over conventional plants, but they have one major drawback that seriously affects the environment: losses

THE CASE FOR SAFE REACTORS

Since the occurrence of accidents in the 1970s and 1980s, researchers have developed newer and safer reactors known as Generation III (and 3+). Japan was the first country to implement advanced reactors in the late 1990s. According to the World Nuclear Association (2006), the third-generation reactors tend to have the following characteristics: a standardized design for each type to expedite licensing, reduced capital costs, and reduced construction time; a simpler and more rugged design, making them easier to operate and less vulnerable to operational upsets; higher availability and longer operating life (typically 60 years); reduced possibility of core melt accidents; minimal effect on the environment; higher burnup to reduce fuel use and the amount of waste; and burnable absorbers to extend fuel life.

Many of the new designs incorporate passive or inherent safety features that require no active controls or operational intervention to avoid accidents in the event of a malfunction. They may rely on gravity, natural convection, or resistance to high temperatures. The safety systems on second-generation reactors require active electrical or mechanical operations. (Malfunction of a pump was the initial cause of the problems at Three Mile Island.) Generation III reactors are a transitional step toward full implementation of the prototypes currently being developed through international partnerships and agreements.

An international collective representing 10 countries formed the organization known as the Generation IV International Forum (GIF) in 2001. The members are committed to the development of the next generation of nuclear technology and in 2002 identified six reactor technologies that they believe represent the future shape of nuclear energy. In 2005 the United States, Canada, France, Japan, and the United Kingdom agreed to undertake joint research and to exchange technical information. India, though not part of the GIF, is developing its own advanced technology to use thorium as a fuel and a three-stage processing procedure utilizing three different types of reactors.

With the current style of reactor, the supply of uranium may last 50 years, but with the newer breeder-style reactors being developed, that time frame would extend to thousands of years. Per gram, the uranium used in breeder reactors has 2.7 million times more energy than coal. Making the supply of fuel last longer is one aim, but reusing spent fuel is another.

Of the six technologies identified by the GIF for development, most employ a closed fuel cycle to maximize the resource base and minimize high-level waste products that would be sent to a repository. Most of these reactors actually use as fuel material that was considered waste in older reactor technology.

There are six types of new GIF reactor designs. Gas-cooled fast reactors' (GFR) fuels include depleted uranium, with spent fuel reprocessed on site and actinides recycled to minimize long-lived waste (actinides are radioactive elements such as uranium, thorium, and plutonium). In lead-cooled fast reactors (LFRs), the fuel is depleted uranium metal or nitride, and actinides are recycled from regional or central reprocessing plants. In Molten Salt Reactors (MSRs), the fuel is uranium, and actinides are fully recycled. In Sodium-cooled Fast Reactors (SFR), depleted uranium is used as the fuel as well as a

mixed oxide fuel (a blend of plutonium, uranium, and/or reprocessed uranium). In Supercritical Water-cooled Reactors (SCWRs), the fuel is uranium oxide, although there is an option of running them as fast reactors using an actinide recycle based on conventional reprocessing. Finally, Very High Temperature Gas Reactors (VHTRs) have flexibility in the types of fuels used, but there is no recycling of fuels.

The spent fuel contained and stored as waste through today's reactor technology retains 95 percent of its energy. Using reprocessed spent fuel would reduce the amount of new fuel required while decreasing the amount sent to long-term storage. Fuel reprocessing, which was banned in the United States by President Jimmy Carter, involves separating the uranium and plutonium, the latter being the prime ingredient in nuclear weapons. If the actinides are kept in the fuel, it can no longer be used for weapons. Generation IV reactors will burn fuel made from uranium, plutonium, and all other actinides, leaving very little to entice possible terrorists. The spent fuel can be continuously recycled, leaving only short-lived and low-level-toxicity materials for waste. Underground repositories will still be necessary, but the waste will be much less radioactive and up to 1,000 times less in quantity. Canadian studies predict that vitrification of spent fuels (encasing waste in solid glass) will last 100 million years. Increasingly, this sounds like "sustainable" nuclear energy.

One of the public's greatest fears is a nuclear meltdown and spill, like the Chernobyl accident. All of the new reactor technologies incorporate characteristics that will make meltdowns and other catastrophes virtually impossible. The reactors will be designed to shut down at excessive temperatures. Problems with pumps breaking down, as was the case at Three Mile Island, will be eliminated. In brief, the new reactor designs prevent these plants from becoming hot enough to split open the fuel particles. If there is a coolant failure, the reactor shuts down on its own, without any human intervention.

The proposed new reactor designs under development will address some of the major concerns expressed by opponents of nuclear energy, but there are still other issues to tackle. The important thing, according to advocates, is for opponents to recognize that nuclear energy is one extremely important part of a system of technologies. Once properly developed, it should allow society to finally move away from our crippling dependence on fossil fuels as the major sources of energy. There is no one magic solution, but there are a lot of exciting possibilities.

—Jerry Johnstone

of excess heat. These plants are only 40 percent as efficient as conventional plants in converting fuel to electricity; that and loss of efficiency manifest themselves as waste heat. As the number of nuclear power plants and other industrial plants increases, an estimated ninefold increase in the output of waste heat will result.

Liquids released by nuclear power plants may be either nonradioactive or slightly radioactive. Water that has been used to cool the condenser and various heat exchangers used in the turbine-generator support processes or that has passed through the cooling

towers is considered nonradioactive. The cooling towers remove heat from the water discharged from the condenser, so that the water can be discharged to a river or recirculated and reused.

The water that goes through the cooling towers differs from plant to plant. Some nuclear power plants use cooling towers as a method of cooling the circulating water that has been heated in the condenser. Nuclear powers plants also differ in when they emit hot water into the environment. During colder months, the discharge from the condenser may be directed to a river. Recirculation of the water back to the condenser's inlet occurs during certain fish-sensitive times of the year, when the plant is supposed to limit its thermal emissions. Many environmentalists contend that such plants do not do this, and even when they do, the environmental impacts of hot water on the aquatic ecosystem are too severe. The thermal emissions of a nuclear plant are powerful and can heat up large bodies of water. They can heat the circulating water as much as 40°F. Some nuclear power plants have placed limits on the thermal differential allowed in their coolant water emissions. For example, they may have limits of no more than 5°F difference between intake and outflow water temperatures. Cooling towers essentially moderate the temperature to decrease the thermal impact in the water, but they also decrease power plant efficiency because the cooling-tower pumps consume a lot of power.

Some or all of this water may be discharged to a river, sea, or lake. One way to reduce thermal pollution is to make use of the hot water and steam using cogeneration principles.

Usually water released from the steam generator is also nonradioactive. Less than 400 gallons per day is considered low leakage and may be allowed from the reactor cooling system to the secondary cooling system of the steam generator. This is an issue because of concerns that radioactivity might seep out. By law, where radioactive water may be released to the environment, it must be stored and radioactivity levels reduced below certain levels. These levels themselves can be controversial. Citizens frequently challenge experts over nuclear risk issues.

In terms of the environmental impacts of thermal pollution, much remains unstudied. Water that is too warm can damage endangered species, such as some types of salmon. This thermal pollution causes a variety of ecological effects in the aquatic ecosystem. More must be learned about these effects to ensure adequate regulation of thermal discharges.

Industry proponents claim that the small amounts of radioactivity released by nuclear plants during normal operation do not pose significant hazards to workers, the community, or the environment. What concerns many communities is the potential for long-term hazardous waste disposal. There could be deadly cumulative effects. There is scientific uncertainty about the level of risk posed by low levels of radiation exposure. Problems inherent in most risk assessments, such as failure to account for population vulnerability or dose–response variance, do little to assure communities they are safe. Human health effects can be clearly measured only at high exposure levels, such as

nuclear war. Other human health effects are generalized from animal studies. In the case of radiation, the assumed risk of low-level exposure has been extrapolated from health effects among persons exposed to high levels of radiation. Industry proponents argue that it is impossible to have zero exposure to radiation because of low levels of background radiation. There is public and community concern about the cumulative impacts of radiation generally.

Industry and Government Responsibility

Because of the high level of public concern, there are strict protocols for safety. Responsibility for nuclear safety compliance lies with nuclear utilities that run the power plants and self-report most of the environmental information. By law, they are required to identify any problems with their plants and report them to the Nuclear Regulatory Commission (NRC). These reports, or the lack of them, have been points of contention. Nuclear power plants last about 40 years and t must then be closed in a process called decommissioning. The NRC requires all nuclear utilities to make payments to special trust funds to ensure that money is available to remove all radioactive material from reactors when they are decommissioned. Several plants have been retired before their licenses expired, whereas others could seek license renewals to operate longer. Some observers predict that more than half of today's 103 licensed reactors could be decommissioned by the year 2016.

There may be an issue looming as to whether there is enough money in the trust funds to clean up the sites adequately. The decommissioning of these power plants will be an issue because of the controversies surrounding the disposal of low-level radioactive waste. It will also be very expensive and fraught with scientific uncertainty. By law, the federal government is responsible for permanent disposal of commercial spent fuel and federally generated radioactive waste. The choosing of sites for this waste is part of the larger controversy surrounding nuclear power. States have the authority to develop disposal facilities for commercial low-level waste. This is often an issue at the state level. The siting process for these types of waste sites then becomes an issue at the local level, often engaging strong community protests. Generally the federal government can preempt state authority, which can preempt local authorities. In this controversy, lawsuits are common.

Nuclear Waste: Is There a Solution?

One of the controversies surrounding nuclear power has to do with the disposal of radioactive waste. It must be sealed and put in a place that cannot be breached for thousands of years. It may not be possible to make warning signs that last long enough. Thousand-year time scales are well beyond the capability of current environmental models. A whole range of natural disasters could ensue and breach the waste site. Few sites can withstand an earthquake or volcanic eruption. Wastes are stored on-site, then moved to a waste transfer station, then to a terminal hazardous waste site. There are political battles

at each step in the process. Each nuclear reactor produces an annual average of about 20 tons of highly radioactive spent nuclear fuel and 50 to 200 cubic meters of low-level radioactive waste. Over the usual 40-year permits granted to nuclear power plants by the NRC, this amounts to a total of about 800 tons of radioactive spent fuel and 1,000 to 8,000 cubic meters of low-level radioactive waste. There are additional hazardous materials used in the operation of the power plant. Upon decommissioning, contaminated reactor components are also disposed of as low-level waste. When combined with any hazardous waste that was stored on the site, the waste produced can be quite large.

The cradle-to-grave exposure to radiation, the increased regulation of hazardous vehicle routes in cities, and the likely expansion of nuclear energy to more community sites all portend a larger controversy.

Conclusion

As climate change becomes a more salient political issue, the push for nuclear energy becomes stronger. There is still no policy to deal with the dangerous waste this energy process produces, which is a source of growing controversy. Scientific controversies about dose–response levels with radiation exposure, cancer causation, and effects on vulnerable populations close to communities all continue. Environmentalists have traditionally opposed nuclear energy as a source of power, but some groups have recently begun to question this in light of global warming and greenhouse gas emissions from coal and oil sources.

See also **Acid Rain; Coal; Cumulative Emissions; Solar Energy; Wind Energy; Sustainability (vol. 1)**

Further Reading

Bodansky, David, *Nuclear Energy: Principles, Practices, and Prospects,* 2d ed. New York: Springer, 2004.

Cravens, Gwyneth, *Power to Save the World: The Truth about Nuclear Energy.* New York: Knopf, 2007.

Garwin, Richard L., and Georges Charpak, *Megawatts and Megatons: The Future of Nuclear Power and Nuclear Weapons.* Chicago: University of Chicago Press, 2002.

Greenberg, Michael R., et al., *The Reporter's Handbook on Nuclear Materials, Energy, and Waste Management.* Nashville, TN: Vanderbilt University Press, 2009.

Hore-Lacy, Ian, *Nuclear Energy in the 21st Century.* Burlington, MA: Academic Press, 2006.

Muller, Richard, *Physics for Future Presidents: The Science Behind the Headlines.* New York: Wiley, 2008.

Murray, Raymond L., *Nuclear Energy: An Introduction to the Concepts, Systems, and Applications of Nuclear Processes,* 6th ed. Burlington, MA: Butterworth-Heinemann, 2008.

Vanderbosch, Robert, and Susanna Vanderbosch, *Nuclear Waste Stalemate: Political and Scientific Controversies.* Salt Lake City: University of Utah Press, 2007.

O

OBESITY

Jennifer Croissant

Obesity, like malnutrition, is a worldwide health problem. Many adults and children of various socioeconomic classes and ethnicities are overweight or obese. Disproportionately more lower-income people are considered too heavy, women are more frequently overweight than men, and there are variations among ethnic groups.

Scope of the Problem

The usual metric for obesity is body mass index (BMI), which is a numerical relationship between height and weight that correlates well with percent of body fat. BMI is an imperfect measure, however; it is often inaccurate for very muscular or big-boned people or those with atypical builds (people who have very broad shoulders or who are very tall or very short, for example).

The Centers for Disease Control and Prevention (CDC) defines adults with a BMI over 25.0 as overweight and over 30.0 as obese. Children and teens have adjusted calculations to account for growth and size changes. Using these measures, in 2004 approximately 66 percent of U.S. adults were overweight or obese—an increase from the 47 percent who were overweight in 1976. Seventeen percent of children ages 2 to 19 are overweight or obese, up from approximately 6 percent. Across the globe, despite the prevalence of malnutrition and starvation in some areas, the World Health Organization (WHO) estimates that there are approximately 1 billion overweight or obese individuals.

The health impacts of obesity are numerous. They include increased susceptibility to type II diabetes (formerly known as adult-onset diabetes but now emerging in younger children), cancer, cardiovascular disease and stroke, and respiratory diseases. These illnesses cause untold suffering and billions of dollars in lost work and medical expenses. Older women who are overweight or obese show lower rates of osteoporosis (bone thinning), but this advantage is offset by the increased rate in the number of falls and injuries.

Contributing Factors

Dietary reasons for the increase in obesity include the prevalence of low-cost, calorie-dense, but nutritionally poor foods—such as "fast foods" and sodas containing high fructose corn syrup (HFCS)—and the inaccessibility of fresh foods such as high-quality fruits and vegetables. These dietary concerns are coupled with increasing hours spent at work (reducing time for home cooking or exercise), increasingly sedentary activities such as sitting in front of televisions and computers, lack of exercise facilities, and a decline in walking and bicycling as forms of transportation.

These multiple factors all contribute to variations in obesity rates as well as to the growing prevalence of obesity. For example, poor urban areas have fewer good food options—with less fresh food and more fast-food restaurants—as well as fewer playgrounds, exercise facilities, and opportunities to walk safely. Gender and cultural factors play into this as well. For example, despite the rapid increase in women's sports over the last 30 years in the United States, it is still acceptable for women not to play sports (in some subcultures, vigorous exercise is actually discouraged), leading to lower activity levels and deteriorating fitness.

Environmental factors make nutritious eating and adequate exercise difficult to achieve; therefore these have become the focus of renewed public health efforts to improve the lifestyles of overweight persons. The focus on environmental factors makes it impossible to use a "fat gene" explanation for the rapid increase in obesity or more simplistic explanations that blame overweight persons for their own lack of willpower. When calorie-rich foods are more easily available and lower in cost than healthful foods and exercise is difficult to schedule, "willpower" is insufficient to change health opportunities and behavior.

Responses

The complete failure of the weight-loss industry, despite nearly $40 billion in annual expenditures by U.S. consumers on diet programs and aids, furthers skepticism about explanations that blame overweight people for their condition, such as "healthism." *Healthism* is defined by obsessive attention to the body and the medicalization of bodily differences that creates an individualistic response, rather than a social or political response, to dietary issues. Healthism is both a public ideology and a private obsession

that may have an influence on the rise of eating disorders such as bulimia or anorexia and that prevents a critical examination of contextual definitions of health. For example, the U.S. military is concerned about obesity rates among youth because it affects the availability of eligible recruits. Those who question the role of the military may be skeptical about such "obesity crisis" assertions.

For similar reasons, those in the size-acceptance or fat-acceptance community reject the representation of obesity trends as a crisis or the idea that a person's size is anybody else's business. Activists and food industry respondents argue that the BMI is not a good measure, asserting the current crisis may merely reflect more accurate statistics. Measurable increases in chronic disease over the past 30 years, however, mean that at least some dimensions of increasing obesity are real and represent a crisis in public health. Approximately 300,000 U.S. deaths per year are attributable to the effects of obesity, making it a more significant cause of death than tobacco use.

Healthism leads to what scholar Joan Brumberg (1997) termed "body projects," the relentless search for perfection particularly aimed at women (and increasingly, at men), resulting from intense media saturation of thin, flawless bodies and perfect complexions. A purely individualistic focus on obesity fosters healthism and body projects, enhancing guilt and stress for those whose BMI is not in line with medical standards; thus too, healthism avoids scrutiny of the social and political factors that make healthier dietary choices and vigorous exercise unattainable for many adults and youth.

Some doctors contend that the weight problem is attributable to family fragmentation at mealtime. Preparing meals together and sitting down and enjoying them together will make a difference, they argue. This position holds that fast and already prepared foods dominate the kitchen table and are filled with preservatives and empty calories that pack on weight without nourishing the body.

For all of these reasons, U.S. First Lady Michelle Obama made promoting healthful lifestyles and fighting childhood obesity the focus of her agenda. In May 2010, calling childhood obesity an epidemic, she unveiled her action plan for the newly formed Childhood Obesity Task Force. In the following February she launched the "Let's Move!" campaign to solve childhood obesity within a decade. That effort concentrates on schools and families.

See also **Nature versus Nurture; Marketing to Children (vol. 1); Nutrition in Schools (vol. 3)**

Further Reading

Albritton, Robert, *Let Them Eat Junk: How Capitalism Creates Hunger and Obesity.* New York: Pluto Press, 2009.

Brumberg, Joan Jacobs, *The Body Project: An Intimate History of American Girls.* New York: Random House, 1997.

Cardello, Hank, with Doug Carr, *Stuffed: An Insider's Look at Who's (Really) Making America Fat.* New York: Ecco Press, 2009.

Centers for Disease Control and Prevention, "BMI—Body Mass Index." http://www.cdc.gov/nccdphp/dnpa/bmi

Finkelstein, Eric. *The Fattening of America: How the Economy Makes Us Fat, If It Matters, and What to Do about It.* Hoboken, NJ: Wiley, 2008.

Liu, Davis. "McDonald's Will Impact Obesity Issue More Than Docs," *Basil and Spice.* May 2010. http://www.basilandspice.com/weight-loss/52010-mcdonalds-will-impact-obesity-issue-more-than-docs.html

National Center for Health Statistics Centers for Disease Control and Prevention., "Obesity Still a Major Problem." http://www.cdc.gov/nchs/pressroom/06facts/obesity03_04.htm

Obama, Michelle, "Childhood Obesity Task Force Unveils Action Plan: Solving the Problem of Childhood Obesity Within a Generation." Press Release, The White House. May 11, 2010. http://www.whitehouse.gov/the-press-office/childhood-obesity-task-force-unveils-action-plan-solving-problem-childhood-obesity

Stern, Judith S., *Obesity: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2009.

World Health Organization, "Obesity and Overweight." http://www.who.int/dietphysicalactivity/publications/facts/obesity/en

OFF-LABEL DRUG USE

Nancy D. Campbell

Off-label use of pharmaceuticals is common in cancer treatment for many reasons, including targeting certain kinds of tumors. It is employed in many other medical situations as well. Yet such use raises sticky ethical questions and muddies legal liability, because clinical trials will not have shown the drug to be effective for conditions other than those for which it has been approved. Some regard off-label drug use as an unethical form of human experimentation, yet it often becomes the standard of care and may sometimes be state-of-the-art therapy.

Off-label use is legal in the United States, where the practice is so widespread that some studies show that 60 percent of prescriptions in the United States are written for unapproved uses. It is mainly older, generic medicines that fall into this category because often new uses for them are found. Frequently, there is medical evidence to support the new use. But the makers of the drugs have not put them through the formal, lengthy, and often costly studies required by the U.S. Food and Drug Administration (FDA) to officially approve the drug for these new uses. Insurance companies are reluctant to pay for drugs for uses that are not FDA-approved. Reimbursement is the biggest problem with off-label drug use. Denials of payment are common because insurance companies view off-label drug use as "experimental" or "investigational."

According to the American Cancer Society, in cancer treatment these issues have been largely addressed through 1993 federal legislation that requires coverage of medically appropriate cancer therapies. This law includes off-label uses if the treatment has been tested in careful research studies and written up in well-respected drug reference books or the medical literature. And in 2008, Medicare rules were changed to cover more off-label uses of cancer treatment drugs.

History

In efforts to avert drug-related public health disasters, the U.S. Congress amended the 1938 Food, Drug, and Cosmetic Act in 1962. Still in effect, the 1962 amendments require that the FDA approve new drugs coming onto the market for specific conditions. Pharmaceutical companies must specify the exact conditions for which the drug is to be used; must show its safety, efficacy, and effectiveness; and must keep marketing and promotional materials within that scope. The "fine print" required on printed pharmaceutical advertisements, the warnings that accompany broadcast advertisements, and the "patient package inserts" (or PPIs) you get at the pharmacy may mention only the approved uses. Even if the unapproved uses of the drug have become commonplace, so-called off-label uses may not be mentioned

The FDA has been careful not to regulate the practice of medicine and has left physicians free to use their own clinical judgment in prescribing drugs. Patients who have so-called orphan diseases, those suffered by small numbers of people, almost always rely on off-label prescriptions, and cancer patients are also often prescribed drugs off-label. Even common conditions such as acne can be treated with off-label drugs. Hormonal contraceptives have been prescribed for their "side effects" in cases of severe acne because Accutane, the drug approved for acne, causes birth defects and is strictly controlled. Male and female users must certify that they are using at least two forms of contraception while on Accutane.

Case Study

Although physicians may prescribe off label, pharmaceutical companies are strictly barred from marketing drugs for off-label uses and can be sued if they mention off-label uses in marketing and promotions or try to persuade physicians to prescribe drugs for unapproved conditions. A high-profile case involved Parke Davis, then a division of Warner-Lambert, maker of the antiseizure drug Neurontin, which was approved in 1994 to treat epilepsy as an "add-on" after other drugs had failed to control seizures. Parke Davis undertook a successful campaign to get physicians to prescribe Neurontin not just to reduce seizures but also for pain. This campaign made Neurontin a blockbuster drug—until a sales representative blew the whistle on the off-label marketing strategy in 1996.

Conclusion

It is always to a company's financial advantage to widen the market for its products. The question that remains unsettled is when pharmaceutical companies should go back and seek FDA approval for off-label uses.

See also **Medical Ethics; Medical Marijuana; Prescription Drug Costs (vol. 1); Drugs (vol. 3)**

Further Reading

American Cancer Society, Off-Label Drug Use. Feb. 23, 2010. http://www.cancer.org/docroot/eto/content/eto_1_2x_off-label_drug_use.asp

Angell, Marcia, *The Truth about the Drug Companies.* New York: Random House, 2004.

Eaton, Margaret L., and Donald Kennedy, *Innovation in Medical Technology: Ethical Issues and Challenges.* Baltimore: Johns Hopkins University Press, 2007.

Loughlin, Kevin, et al., eds., *The Guide to Off-Label Prescription Drugs: New Uses for FDA-Approved Prescription Drugs.* New York: Free Press, 2006.

National Cancer Institute, Understanding the Approval Process for New Cancer Treatments. Q&A: Off-Label Drugs. www.cancer.gov/clinicaltrials/learning/approval-process-for-cancer-drugs/page5

United States General Accounting Office, Off-label drugs, reimbursement policies constrain physicians in their choice of cancer therapies (report GAO/PEMD-91–14). September 1991. Washington, DC. http://archive.gao.gov/d18t9/144933.pdf

OIL DRILLING AND THE ENVIRONMENT: THE CASE OF ANWR

Robert William Collin and Debra Ann Schwartz

The Arctic National Wildlife Refuge (ANWR) is a vast, protected wildlife habitat in Alaska where oil and natural gas have been found. Because of this, environmentalists representing the interests of pristine wilderness and endangered species are pitted against oil and gas corporations. Federal, state, tribal, and community interests are heavily involved. For many years there have been contentious legislative sessions in Alaska and Washington, D.C., over drilling for oil in the Arctic Wildlife Refuge and other parts of Alaska. The issues in this controversy may well end up being addressed in the courtrooms.

Political Dimensions

In June 2010, Tea Party Libertarian activist Sarah Palin, who resigned as Alaska's governor shortly after a failed attempt at the vice presidency, blamed environmentalists' tactics for British Petroleum's massive oil spill in the Gulf of Mexico. Palin contended that the

ban on oil drilling in pristine areas such as the ANWR and shallow onshore waters forced the United States to pursue risky deep-ocean drilling for economic purposes.

The U.S. Fish & Wildlife Service (FWS), which has authority over the ANWR, is currently revising its Comprehensive Conservation Plan for the refuge. This multiyear effort involves much public comment officially presented during public hearings before elected officials.

The plan's intent is to guide stewardship of the land for the next 15 years or more. It will include requiring a wilderness review of the entire refuge. Researchers with FWS currently are studying the Smith's longspur, a rare bird making its home in the refuge. Changing climate is causing large parts of the refuge to be redefined by birds, fish, and mammals that did not make their home there until recently. For example, robins have appeared in northern Alaska for the first time, as have other warm-weather species.

In May 2010, the fight over oil drilling in the ANWR heated up at a hearing in Anchorage over the possibility that the FWS's new management plan could put the refuge and its billions of barrels of crude off limits for good. If the ANWR is designated as wilderness by the FWS, no drilling for oil could occur there. The FWS expects to finalize the plan in 2012.

For decades, ANWR has been a point of contention between environmentalists—who oppose drilling there—and oil companies and Alaska's elected and appointed officials, who see money in their pockets from tapping ANWR's oil, although publicly they will argue for drilling as a means of relief from foreign oil dependency.

The U.S. Environmental Protection Agency (EPA) during the presidency of George W. Bush opposed drilling in ANWR, arguing instead that increasing the minimum gas mileage requirement for vehicles by at least three miles per gallon would eliminate U.S. dependence on foreign oil. (Hybrid vehicles that use a combination of gasoline and electricity for fuel have gone beyond the three-mile increase, with further fuel efficiencies required by the Obama administration.) U.S. Senators Lisa Murkowski and Mark Begich contend that it is a waste of taxpayer dollars to investigate whether to make the ANWR forever wild. Pamela Miller of the Northern Alaska Environmental Center, on the other hand, has said that what is needed is to consider the environmental disaster unfolding in the Gulf of Mexico. This is not the time, says Miller, to be "contemplating BP waltzing into our nation's premier wilderness area."

Background

Federal lands in Alaska are vast. Roads and people are scarce. Wildlife abounds, unseen by human eyes. The weather can stop most human activities for days at a time, also making travel uncomfortable, risky, and expensive. Economic development around most types of activities such as agribusiness, oil or mineral drilling, logging, tourism, and shipping is equally constrained by the cold, inclement weather and the expense of dealing with it. Without good roads and transportation infrastructure, most economic

development suffers, making the prospect of such improvements attractive to many Alaskan communities. However, the federal government was and is the largest landowner and has exerted its power to create and protect its interests.

Ever since Alaska was recognized and accepted by the United States as a state, environmental protection and natural resource use have been at odds. Although Alaska has seemingly limitless natural resources, these exist in fragile tundra and coastal environments. Without roads, logging, mining, or any substantial human development is very difficult. Indigenous peoples of Alaska have, in the past, been self-sufficient, subsisting on the land and water. Subsistence rights to fish, game, and plants as well as ceremonial rights to this food are very important to many indigenous peoples, including bands and tribes in the United States. Therefore Congress passed the Alaska National Interest Lands Conservation Act (1980) and established the ANWR. At that time Congress specifically avoided a decision regarding future management of the 1.5-million-acre coastal plain. The controversy pitting the area's potential oil and gas resources against its importance as wildlife habitat, represented by well-organized environmental interests, was looming large then.

This was the not the first or last experience pitting oil companies against environmentalists, state interests in economic development against federal interests in preserving wilderness areas, and other opposing interests. Numerous wells have since been drilled and oil fields discovered near the ANWR. Also, the characteristics of the ecosystem and measures of environmental impacts to date have been documented in very similar places nearby.

Global warming and climate change greatly affect this particular controversy. Most scientists agree that for every one degree of global warming, the Arctic and Antarctica will warm up by three degrees. The planet has been warming and the Arctic ice is melting. In September 2004 the polar ice cap receded 160 miles away from Alaska's north coast, creating more and more open water. This has had dramatic environmental impacts in the Arctic because many species from plankton to polar bears follow the ice for survival. The implications of global warming for the ANWR oil-drilling controversy are developing. Environmentalists think such development may make an already sensitive ecosystem even more sensitive. Mosquitoes are now seen further north than ever before. They attack nesting birds that do not leave the nest for long periods and have never been exposed to mosquitoes before. There are many anecdotal reports of species impacts in the Arctic.

The focus of the controversy about oil drilling in the ANWR is its coastal plain. It is a 25-mile band of tundra wetlands that is of key interest to both oil interests and environmentalists. This area provides important nursing areas for Arctic wildlife. Damaged tundra takes a long time to recover and is generally considered a sensitive ecosystem. Tundra is very sensitive to many of the activities around oil drilling. The wetlands,

where food can be moved around the coast efficiently, can also allow the movement of hazardous materials in the same way.

But the refuge's coastal plain also contains oil. Exactly how much and where is a subject of dispute. Controversies about the sensitive ecological character of the refuge; the amount, kind, and accessibility of oil that lies beneath it; and the environmental impact that oil development would have on it all abound. The primary concern about its impact is the threat to species and other parts of the ecosystem.

Environmental Characteristics

ANWR's brutal winters and glorious summers characterize its seasonal extremes. Given its inaccessibility to humans, many species of wildlife thrive here. The ANWR is located between the rugged Brooks Mountain Range and the Beaufort Sea in northeast Alaska. This large area, with ecotones ranging from mountains to the coastal plain, allows many species to adapt to seasonal extremes. The seasonal migration of the caribou plays a large part in the food chain here.

The coastal plain's rich ecosystem is easily affected by both local and global environmental forces. The ANWR's coastal plain alone supports almost 200 wildlife species, including polar bears, musk oxen, fish, and caribou. Every year, millions of tundra swans, snowy owls, eider ducks, and other birds migrate to the coastal plain to nest, raise their offspring, molt, and feed. Other species give birth there, and many others migrate through the area.

Some environmental scientists consider the coastal plain to be the biological heart of the entire refuge. They maintain that any oil drilling in the refuge would irreparably harm the wildlife by destroying this unique habitat. Oil development, with its drilling, road building, water and air emissions, noise, and waste — could irreparably degrade this pristine, fragile wilderness. The fact that the plan involves exploration and drilling for oil and gas, the very substances that cause so much pollution, heightens the controversy. Environmental groups are making a stand because this is one of last remaining untouched wilderness areas of this type in the United States.

Oil's Industrial Impact

When the Exxon Valdez spilled millions of gallons of fresh black crude oil into the healthy, clear waters of Prudhoe Bay, a pristine area—known for its rich fisheries and traditional native lifestyle, a way of life that had sustained people and wildlife for hundreds of years—disappeared. The oil spill of the Valdez, its environmental impacts, and subsequent protracted litigation are well known. Environmentalists point to other nearby similar areas that have allowed oil development, arguing that the environmental impacts in the ANWR are not worth the oil. They point to the controversial Alaskan

North Slope, where oil extraction occurs on a massive scale, as well as to the 2010 BP–Deepwater Horizon oil spill in the Gulf of Mexico.

The Alaskan North Slope was once part of the largest intact wilderness area in the United States. It is similar to the ANWR. With controversy, the North Slope was opened up to oil drilling and a pipeline was built, which continues to leak through Alaska and Canada as it brings oil to the United States.

Alaska's North Slope oil operations expanded. This enterprise now comprises one of the world's largest industrial complexes. The oil operations and transportation infrastructure are vast, covering about 1,000 square miles of land. Not so long ago, most of this land and environment was wilderness, as the ANWR is now. There are oilfields, oil tankers, a few basic oil refineries, oil storage, and oil spills. Roads and airstrips are often built. These activities drastically increase environmental impacts in wild areas.

On the Alaskan North Slope, Native Americans have important interests, and some locations there are considered sacred by them. Industrial development land rights, allegedly existing for the public good, may extend to a limited set of natural resources, such as timber or seasonal harvesting. Wilderness destruction has sometimes moved ahead without protection for the land held sacred by traditional residents.

Sometimes local communities are in favor of infrastructure development as a means of economic development, despite the environmental consequences. The scale of industrial operations here affects all these interests. Prudhoe Bay and 26 other oilfields on the Alaskan North Slope include the following:

- 28 oil production plants, gas processing facilities, and seawater treatment and power plants
- 38 gravel mines
- 223 production and exploratory gravel drill pads
- 500 miles of roads
- 1,800 miles of pipelines
- 4,800 exploration and production wells

This large-scale industrial operation is taking place in a comparably fragile region much like the ANWR. In the modern context of global warming and climate change, the caribou that play such an important role are affected by the retreating ice. They cannot feed on the lichen on rocks in places formerly covered by ice. Their migratory route is being altered. The same is true for many species. The environmental impact alone is a controversy now fueling the ANWR controversy. Ecosystem resiliency is defined as the length of time it takes an ecosystem to recover from stress. Because of the same factors that affect the ANWR, the North Slope is considered fragile.

The crucial factors are a short, intense summer growing season, bitter cold in the long winter, poor soils, and permafrost. The North Slope, like ANWR today, was originally a wildlife area with little human intrusion. Environmentalists contend that any physical

disturbance to the land—such as roads, oil spills, and drilling—has long-term, perhaps irreparable environmental impacts. The National Academy of Sciences has concluded with regard to the North Slope that "it is unlikely that the most disturbed habitat will ever be restored and the damage to more than 9,000 acres by oilfield roads and gravel pads is likely to remain for centuries." Many environmentalists contend that the cumulative impacts of oil development have affected Prudhoe Bay negatively. Environmentalists use the North Slope experience to argue for the protection of the ANWR. They use it to show that it is impossible to drill for oil without irreversible environmental consequences.

Of particular concern is spilled oil and other petrochemical waste products from engine maintenance. According to environmentalists, oil operations spill tens of thousands of gallons of crude oil and other hazardous materials on the North Slope every year. Environmentalists worry that not all spills are reported, as most industry environmental impact information is self-reported. Spills can occur when companies are drilling for new oil, storing it, and transporting it. Conditions for all these activities can be physically rough in Alaska. Weather conditions can become severe for days at a time, making them conducive to spills. According to industry and government reports, from 1996 to 2004, there were at least 4,530 spills on the North Slope of more than 1.9 million gallons of diesel fuel, oil, acid, biocide, ethylene glycol, drilling fluid, and other materials. Some of these chemicals can rapidly percolate, or move through, soil to reach water tables. Conditions in Alaska, particularly in the northern reaches of Alaska, can make it difficult to contain and clean up a spill of any size.

Oil Operations and the Air

Coal-burning power plants and petrochemical refineries emit large quantities of regulated pollutants into the air. Diesel generators and vehicles, trucks, and airplanes also emit pollutants. According to the Toxics Release Inventory, oil operations on Alaska's North Slope emit more than 70,000 tons of nitrogen oxides a year. Sulfur and nitrogen are air pollutants, which contribute to smog and acid rain. North Slope oil operations also release other pollutants, which are major contributors to air pollution. Each year, they admit to emitting 7 to 40 million metric tons of carbon dioxide and 24,000 to 114,000 metric tons of methane in the North Slope. This is probably within the terms of their air permit and may exclude de minimus or fugitive emissions.

Emissions caused by natural disasters such as hurricanes and tsunamis are also exempt. Sustainability advocates point out that the methane emissions do not include the methane released because of the melted permafrost. All these impacts are in the context of larger controversies such as global warming and climate change, which also affect sensitive Alaskan ecosystems. Emissions will be higher in the ANWR as North Slope oil is transported by tanker from the site to a refinery. It is refined and distributed off

POLAR BEARS AND GLOBAL WARMING

All over the southernmost part of their Arctic range, polar bears are thinner, lower in number, and producing fewer offspring than when the ice was thick. As the ice has retreated, polar bears have been forced to get food from human garbage. Some say that the lack of ice due to global warming has disrupted the ability of polar bears to hunt for seals, forcing them to swim further in search of food. Some are not successful. In 2004, researchers found four dead polar bears floating about 60 miles off Alaska's north shore. Although polar bears are capable of swimming long distances, 60 miles is considered unusual.

The polar bear is at the top of the food chain in the Arctic. At least 200 species of microorganisms grow in Arctic ice floes. They form curtains of slimy algae and zooplankton, and when they die, they feed clams at the bottom, which feed the walruses and seals, which feed polar bears.

Polar bears also act as storehouses of the heavy metals they consume when they eat fish and other animals that have eaten creatures lower in the food chain. This is called bioaccumulation. Cancer-causing chemicals and heavy metal compounds in great concentrations become stored in the fish and animal's fat cells and increase in quantities as more is consumed. This is especially true for mercury and polychlorinated biphenyls (PCBs) generated by polluting industries such as oil drilling, paper making, and textile mills.

Scientists closely examine apex animals, such as polar bears and humans, living in the places where the effects of climate change are first observable. The North Slope polar bears are now monitored by radio collaring and the mapping of dens.

the drilling site. ANWR oil and gas could still be refined on site if oil exploration and drilling is approved.

Airborne pollution from Prudhoe Bay has been detected as far away as Barrow, Alaska, about 200 miles distant. The environmental impact of industrial oil operations on the North Slope is widespread. The Canadian government has experimented with oil companies and cumulative impacts research in neighboring northern Alberta. In the sensitive Arctic environment of northern Alberta, the government has allowed drilling and refining operations on the condition that the involved companies account for all impacts, including cumulative impacts. Because vast areas of Alaska are undeveloped, the potential exists for a large environmental impact before it can be discovered or contained, as in BP's Gulf of Mexico disaster. (In the latter case, the company did not have sufficient well-capping measures in place to prevent the catastrophe that occurred, and the well leaked 60,000 barrels per day for two days before it was discovered. By the end of the nearly three-month period during which the leak was active, close to 5 million barrels of crude had been discharged into the gulf.)

Hazardous Waste and Its Impacts on Water and Wetlands

Drilling for oil includes digging large pits in the ground. As these pits become obsolete, they are used as waste dumps. Pits holding millions of gallons of wastes from oil and gas drilling and exploration can still be found all over the North Slope. These pits were a stew of toxic chemicals, many with long-lasting environmental impacts in any ecosystem. Deep well injection, as this waste disposal method is called, was stopped because of

LONG-LASTING ENVIRONMENTAL DISASTER

BP (formerly British Petroleum), whose Deepwater Horizon offshore oil rig succumbed to an explosion and gushed tens of thousands of barrels of crude oil into the Gulf of Mexico each day between April 20, 2010, and July 15, 2010, was obliged to set up a $20-billion recovery fund for businesses, organizations, and individuals harmed by the spill and its environmental effects. That is in addition to the $9.5 billion the company incurred in working to cap the well head and seal off the reservoir lying below.

In May 2010, BP announced that it would spend up to $500 million over 10 years to research how oil spills in the ocean affect marine and shoreline life. BP's 10-year research plan includes studying the effects of oil on land and on life in general as well as the impact of chemical dispersants used to break up oil on the seabed and along the shore, ways to improve technology to detect oil, and ways to clean up the ooze.

Meanwhile, wetland scientists, both during and after the crisis, have considered ways to protect the environment. Some have suggested that the most effective tool for eliminating an oil spill from an offshore rig is a box of matches in the context of a controlled burn. This method had had a history of success before the gulf spill, and it ended up being used to good effect by the U.S. Coast Guard in managing the Deepwater Horizon slick.

Another possible approach is to fertilize the microbial community with nitrogen and phosphorus to increase its size. The thinking is that activity by more microbes would degrade the oil. A third possibility for protecting a delta ecosystem is to build artificial barrier islands, or sand berms, to prevent the oil from coming onshore. And in cases where it does make landfall, it has been proposed that one may cut the oil-coated marsh grasses at the surface, leaving their roots intact for future growth. Although all of these methods were tried to one degree or another during the gulf spill, it was controlled burning and chemical dispersants that became the two workhorses of the containment effort. Neither one of these, however, has had its long-term effects well documented.

In response to the spill, the Society of Wetland Scientists has created an online repository of resources related to the impacts of oil on wetland ecosystem at http://sws.org/oilspill/. This repository aims to document the ecological impacts of the spill on wetlands and the experiences of the wetland science community as it responds to this latest disaster. News articles, science conferences, personal experiences, and professional opinions are posted there.

its impact on underground aquifers. As aquifers dry up, as around San Antonio, Texas, they pull in the waste injected in deep wells.

Of the known and undisputed pit sites, more than 100 remain to be cleaned. *Clean* is a relative term. In this case, it generally means pumping out the toxic materials and removing them for treatment as hazardous waste. *Clean* does not mean restoring the ecological integrity of the place. This is why some environmentalists claim that the impacts of oil exploration and drilling cannot be mitigated and it should therefore not be allowed. There could be many more. Many of the sites that have already been cleaned had pervasive environmental impacts because the wastes had migrated into the tundra and killed it. The oil company pit sites contain a variety of toxic materials and hazardous chemicals. Typically, they include acids, lead, pesticides, solvents, diesel fuel, caustics, corrosives, and petroleum hydrocarbons. If the pit sites are not adequately closed, they can become illegal sites for more trash.

This second wave of trash can include vehicles, appliances, batteries, tires, and pesticides. Oil industry trade groups point out that deep well injection has been an accepted method of waste disposal for oil operations. It was the prevailing practice in Texas and Alaska for many years. Environmentalists respond by noting that the industry may have been acting within the bounds of its permits, but the environmental impacts are still too large. Politically, the oil operations expanded revenue for the state and built some infrastructure in a large state with a low population. Communities differ greatly on aspects of this controversy. State environmental agencies do not strictly or overzealously enforce environmental laws against large corporations. In fact, Alaska voluntarily relinquished its control of the Hazardous Waste Cleanup Program, and the EPA took it over.

This aspect of the ANWR controversy, the hazardous waste cleanup, is an issue for state and federal environmental agencies. Most state environmental agencies get most of their revenue from the federal environmental agencies such as the EPA. However, in federally mandated environmental programs, such as the Clean Air Act, the states must either do it to some minimal standards or the EPA will do for them. In most instances states are free to choose the best method to meet the federally mandated result. However, in Alaska results were not meeting federal standards. This confrontation heightens the intensity of the ANWR controversy for industry, community, and environmental interests. It is seen by some as a test of federal sovereignty over states rights, which removes some of the environmental issues from the discussion. Similar tussles between federal, state, and corporate entities regarding duties and responsibilities occurred in the case of the Deepwater Horizon disaster in the Gulf of Mexico (until, that is, the federal government, on June 16, 2010, made clear that BP was responsible for shouldering the full cost of the cleanup and that the cleanup would be done to EPA standards).

If oil drilling is allowed in the ANWR, then more impacts to the environment from hazardous and toxic waste can be expected. Environmentalists point out that most past mitigation efforts were not successful or mandatory. There is no legal requirement to

mitigate the impacts of mitigation, which could themselves be considerable in large-scale projects.

Current and Past Controversial Policies

Generally, the George W. Bush administration facilitated processes for the energy industry to drill for oil and gas in many sensitive public lands. Across the western United States, federal agencies such as the Department of the Interior leased these areas for oil and gas development. The tenants are oil and gas companies setting up operations on millions of acres of previously wild and open federally owned land. Proponents of this change in public policy contend that there is an energy crunch and that, with rising gas prices, the country needs to access to all possible U.S. oil sources. This position goes against everything two major social movements in the United States have sought to protect: wilderness. The Romantic Movement and the American Transcendentalists fought industrialists and politicians in the 1800s to protect and conserve wilderness. It provides peace, rapture and restores the soul, they argued. The National Park System resulted from their efforts, and state parks followed along with wilderness protection areas such as the Adirondacks in New York State, overwhelmingly voted to stay forever wild by state residents.

According to the Natural Resources Defense Council, the Bush administration granted faster, almost pro forma, drilling approvals for requests to drill for oil on public lands. They also relaxed rules and policies to make it easier for oil interests to drill on public lands such as in national parks. In addition to reducing the number of environmental restrictions, they also reduced the amount of royalty payments companies paid to the government if oil was tapped on public land, thereby allowing private interests to take in more money for themselves without honoring their full obligation to the country or its citizens. (In the aftermath of the BP–Deepwater Horizon spill, similar "sweetheart deals" were discovered to have been in place for companies operating in the Gulf of Mexico under the now defunct Minerals Management Service.)

During the Bush administration, officials from the Bureau of Land Management (BLM), the Interior Department agency that manages the vast majority of federal lands and onshore energy resources, directed field staff to expand access to public lands for energy development and to speed related environmental reviews. BLM data show that the number of leases for oil, gas, and coal mining on public lands increased by 51 percent between 2000 and 2003—from 2.6 million acres to more than 5 million acres. The BLM has also repeatedly suspended seasonal closures designed to protect wildlife and is rushing to update numerous western land use plans to permit even more leasing and drilling. In the interior West, where most of the nation's oil and gas resources lie, more than 90 percent of BLM-managed land is already open for energy leasing and development.

There is much controversy about how much oil exists in ANWR. Critics say that if it were the only source, it would yield less than a six-month supply of oil. Supporters of

drilling, based on national security, say that all resources need to be marshaled. Overreliance on foreign oil sources leaves us dependent on other countries and vulnerable while at war, proponents of drilling contend. The United States is a large consumer of oil. As a country it has 5 percent of the world's population but consumes almost 25 percent of all the oil produced worldwide every year. The United States has only 3 percent of the world's proven oil reserves, making drilling in the ANWR a higher-stakes battlefield. Federal agencies have assessed the issue. The U.S. Geological Survey (USGS) estimates that the amount of oil that might be recovered and profitably brought to market from the refuge's coastal plain is only 5.4 billion barrels, based on the U.S. Energy Information Administration's (EIA) average forecast price of $28 a barrel over the next 20 years.

At $40 per barrel, the USGS estimates that there would be only 6.7 billion barrels that could be profitably brought to market from the coastline reserves. The United States uses about 7.3 billion barrels of oil per year. Drilling proponents claim that at least 16 billion barrels of oil could be recovered from the refuge's coastal plain. They point out that there could be recoverable oil and gas in other parts near the coastal plain.

But the USGS says there is less than a 5 percent possibility that the coastal plain and adjacent areas contain that much recoverable oil. They maintain that only a small part of that oil could be economically produced and transported to markets. Drilling proponents are accused of ignoring the fact that the costs of exploration, production, and transportation in the Arctic are substantially higher than in many other regions of the world. Shipping, pipelines, and rail are all challenged by rough weather, earthquake-prone landscapes, and wilderness conditions. Extreme weather conditions and long distances to market would make much of that oil too expensive to produce at current market conditions.

Drilling supporters claim that once the roads are built and the infrastructure is set up, costs will decrease, and oil demand is almost always increasing. They point out that the North American continental natural gas pipeline is expanding and that technology may make oil transport cheaper and safer for people and the environment. They also consider global warming to have one positive impact in that shipping lanes will be more reliably open because of the receding ice. The ice has drastically receded at the coastal plain in ANWR.

To many rural Alaskan communities, getting infrastructure and the promise of an oil-company job are large benefits. With new roads, airstrips, and ports, other forms of economic development would be able to occur. Tourism is a growing industry without the environmental impacts of oil drilling but requires a safe transportation network. The area's Inupiat Eskimo and Gwich'in Athabaskan-speaking Native American inhabitants are actively involved in the controversy. Their respective views are significantly shaped by the nature of their relationship to the economy, the land, and its natural resources. Some of the oil reserves are on tribal lands. Some tribes are in favor, some are divided, and others are against oil exploration.

Conclusion

The environmental effects of the Exxon Valdez oil spill in Alaska's Prince William Sound on March 24, 1989, are still visible on the land and in the wildlife there. Just as Exxon was caught unprepared for an emergency, so BP is wearing those shoes today. While scientists try proven techniques to deal with the situation, one problem persists: they have never been tried in 5,000 feet of water. How was the oil industry allowed to build offshore rigs without a set of proven remediation tools in place appropriate to the environment in which it was working? Lisa Jackson, administrator for the EPA, observed that the oil industry has improved its techniques for getting oil out of the ground but not its skill at containing it. Seemingly, BP had no plan for a worst-case scenario. Looking at the industry running through the same set of solutions it did in 1979 when a well blew up in the Bay of Campeche off of Mexico, the solution seems to be to change the way the industry calculates risks. New regulations that will fill technological gaps revealed by the BP–Deepwater Horizon spill in the Gulf of Mexico are expected.

The controversy over drilling in the ANWR swirls around questions of how much oil is there and whether any drilling at all is acceptable in a pristine wilderness area. It may be that there is more oil and much more gas there than currently known. It may also be that oil cannot be reached without irreversible environmental impacts. As other global petrochemical resources dry up, the pressure to drill for oil and gas in the ANWR will increase.

Petrochemical controversies around protected parts of nature also affect other controversies. Declining air quality from burning petrochemicals touches all aspects of this controversy, from local neighborhoods, tribes, and communities to global warming concerns. Political concerns about oil company profits right after Hurricane Katrina and all during the Mideast conflicts also inflame oil drilling issues in the Arctic. The earlier controversy concerning North Slope oil exploration and drilling provided evidence of severe environmental impacts. The potential for future controversy in ANWR drilling is very great.

See also **Endangered Species; Land Pollution; Mining of Natural Resources; Transportation and the Environment; Water Pollution; Oil Economics and Business (vol. 1)**

Further Reading

Arctic Wildlife Refuge, arctic.fws.gov/issues1.html

Federal Agency North Slope Science Initiative, www.mms.gov/alaska/regs/mou_iag_loa/2005_BLM.pdf

Fischman, Robert L., *The National Wildlife Refuges.* Washington, DC: Island Press, 2003.

McMonagle, Robert J., *Caribou and Conoco: Rethinking Environmental Politics in Alaska's ANWR and Beyond.* Lanham, MD: Rowman & Littlefield, 2008.

Mowbray, Rebecca, "Deepwater Horizon Oil Spill Revealed an Industry Ill-Prepared to Deal with 'Black Swan' Event." *Times-Picayune* (May 21, 2010). http://www.nola.com/news/gulf-oil-spill/index.ssf/2010/05/deepwater_horizon_oil_spill_re.html

Pemberton, Mary, "ANWR Coastal Plain Hearing Draws Standing-Room Crowd." *Anchorage Daily News* (May 11, 2010). http://www.adn.com/2010/05/11/1273779/anwr-coastal-plain-hearing-draws.html

Reed, Stanley, and Alison Fitzgerald, *In Too Deep: BP and the Drilling Race That Took It Down.* New York: Bloomberg Press, 2011.

Sacred Lands: Arctic Wildlife Refuge, www.sacredland.org/endangered_sites_ pages/arctic.html

Spotts, Pete, "BP Oil Spill: How to Save Wetlands—Set Them on Fire, Maybe." *Christian Science Monitor* (May 24, 2010). http://www.csmonitor.com/USA/2010/0524/BP-oil-spill-How-to-save-wetlands-Set-them-on-fire-maybe

Standlea, David M., *Oil, Globalization, and the War for the Arctic Refuge.* New York: SUNY Press, 2006.

Truett, Joe C., and Stephen R. Johnson, *The Natural History of an Arctic Oil Field.* London: Elsevier, 2000.

U.S. Fish & Wildlife Service. Potential Impacts of Proposed Oil and Gas Development on the Arctic Refuge's Coastal Plain: Historical Overview and issue of Concern. http://arctic.fws.gov/issues1.htm

U.S. Fish & Wildlife Service, Arctic National Wildlife Refuge, http://arctic.fws.gov

U.S. PIRG Education Fund, *The Dirty Four: The Case against Letting BP Amoco, ExxonMobil, Chevron, and Phillips Petroleum Drill in the Arctic Refuge.* Washington, DC: U.S. PIRG Education Fund, 2001.

P

PERSISTENT ORGANIC POLLUTANTS

Robert William Collin

Persistent organic pollutants present environmental and health risks despite their effectiveness in their uses and applications. There is a strong international movement to ban them from food sources, but some countries still use them, and chemical manufacturing corporations still produce them for profit.

Why Are Persistent Organic Pollutants a Controversy?

These chemicals cause controversy because they last a long time in the environment. Their presence can be damaging to other parts of the soil and water. Since they persist, or last, in the environment, annual reapplication of pesticides increases cumulative exposures dramatically. Persistent organic pollutants (POPs) are several groups of chemicals. Polychlorinated biphenyls (PCBs) are industrial chemicals. The two remaining groups are dioxins and furans. POPs have one common characteristic: their persistence in the environment. Some early pesticide applications wanted this characteristic because it was presumed that stronger chemicals that lasted longer performed their task better. They last longer than required for their intended use, however, and it is always an issue as to exactly how long they do last. Over time, the accumulation of POPs eventually made the case that they do persist. All 12 POPs listed are chlorinated compounds, 9 of them having been developed as pesticides. Their use is decreasing, but controlling international use is controversial. Farm workers and others who live near POP applications can suffer from overexposure. This can cause acute poisoning. If acute poisoning occurs, no

PERSISTENT ORGANIC POLLUTANTS

Polychlorinated Biphenyls (PCBs) in New York's Hudson River

General Electric (GE) is responsible for PCBs on the bottom of the Hudson River in New York. GE is an old company that existed well before any environmental regulation. It has long contended that natural processes, including reductive dechlorination, substantially reduce the risk of PCB exposure to humans and the environment and that these processes should be allowed to continue. The U.S. Environmental Protection Agency (EPA), however, designated the area a Superfund site in the 1980s, and in 2000 began considering a large-scale dredging operation to clean up the contaminated sediments, with GE as the primary responsible party. Environmentalists filed several lawsuits against the company and other parties to force a cleanup. Community groups along the historic Hudson River were also concerned.

The EPA concluded that dechlorination would not naturally remediate contaminated sediments. Although GE continues to maintain that a number of natural processes, viewed together, stand to dramatically reduce the risk from contaminated sediments, saying that "Anaerobic dechlorination reduces toxicity; aerobic degradation reduces the overall mass; and sorption onto organic particles reduces bioavailability."

Nevertheless, community and environmental groups maintain that Hudson River PCBs are a serious health risk.

- PCBs can damage the immune, reproductive, nervous, and endocrine systems. They can impair children's physical and intellectual development.
- PCBs cause cancer in animals and are strongly linked to human cancer, according to studies by leading health agencies.
- GE maintains that PCBs do not hurt people, citing a study it commissioned on workers at its Hudson Falls plant. The New York State Department of Health and many independent scientists have critiqued the research, saying that it does not support GE's claims.
- According to the EPA, cancer risks from eating upper-river PCB-contaminated fish are 1,000 times over its goal for protection and 10 times the highest level generally allowed by Superfund law.

Hudson River PCBs will not go away naturally. There is deep distrust from the community that people are safe from harm from these PCBs.

- PCBs were designed not to break down. They are persistent organic pollutants that remain in the environment indefinitely.
- GE claims that river microbes eliminate PCBs naturally, but the EPA found that less than 10 percent had broken down. After breakdown, PCBs remain toxic and are more readily spread throughout the ecosystem.
- GE claims that Hudson River PCB pollution has dropped 90 percent, a deceptive statistic because the drop occurred when discharges were banned in the late 1970s. Since the mid-1980s, levels have remained quite constant and well

above acceptable limits. The EPA's independent, peer-reviewed science predicted that, without remediation, the problem would last into the foreseeable future.
- GE's PCBs are responsible for "eat-none" health advisories for women of childbearing age as well as for children for all fish from all Hudson River locations.

Hudson River PCBs are not safely buried by sediments, contend community members and scientists. This is a pervasive controversial issue in environmental cleanups. Does disturbing the site cause more environmental damage? Often this question is complicated by cost-cutting measures that affect the environmental decision. The early days of "don't ask, don't tell" environmental policy are replaced by ecosystem risk assessment at Superfund sites. In the case of the Hudson River and GE,

- Of the estimated 1.3 million pounds of PCBs dumped by GE, about 200,000 pounds remain in upper-river sediments. Every day, through resuspension by currents, boats, bottom-dwelling animals, and so on, the sediments release PCBs. About 500 pounds wash over the Troy Dam annually.
- The EPA's peer-reviewed science has found that PCBs are not being widely buried by sediments.

Current Dredging Technology Is Safe, Effective, and Efficient

- Dredging stands to cut in half the flow of PCBs over the Troy Dam, and the EPA forecasts safe fish levels 20 years earlier after dredging.
- The EPA's proposal does not rely on a local landfill.
- Under the EPA's worst-case scenario, dredging might stir up 20 pounds of PCBs annually. However, the cleanup will immediately and dramatically reduce the 500 pounds moving downstream already. In the long term, dredging can virtually eliminate upriver sediment releases of PCBs.
- A recent Scenic Hudson national study of 89 river cleanup projects found that dredging was preferred 90 percent of the time. Dredging reduced PCB levels in rivers and fish in locations such as the Fox River (Wisconsin), Manistique Harbor (Michigan), Cumberland Bay (New York), and Waukegan Harbor (Illinois).
- Dredge operations at rivers nationwide were minimally disruptive to lifestyle and recreation.
- River ecosystems will not be devastated and will quickly re-establish themselves in a clean and healthy environment.

In 2002 the EPA ruled that dredging was the best solution. GE was given the option of doing the work itself or having the EPA do it at GE's expense. After further delays, the first phase of the operation got under way in 2009, with GE choosing to perform the work itself according to EPA specifications. The EPA's PCB-removal plan combines plan-site source control with removing 100,000 pounds of PCBs from the river. Dredging is expected to reduce cancer and noncancer dangers by up to 90 percent compared with just stopping contamination from GE's old plants.

antidotes are available for the internationally banned POPs. POP exposure can follow other vectors of exposure because they are so persistent in the environment. They eventually reach the top of the food chain—humans.

Human Exposure

The greatest part of human exposure to the listed POPs comes from the food chain. The contamination of food, including breast milk, by POPs is a worldwide controversy. In most of the world, breast milk is the sole source of food for most infants. Edible oils and animal products are most often involved in cases of POP contamination. Food contaminated by POPs can pose chronic health risks, including cancer. The long-term implications of low-level exposure are not known. There is controversy on this point within the scientific community. Some researchers are concerned that long-term low-level exposure to POPs may have more cumulative impacts because of their persistence. Others maintain that low-level exposures do not cause any risk, but these individuals do not engage the cumulative-risk concerns.

Vectors for food contamination by POPs occur through environmental pollution of the air, water, and soil or through the use of organochlorine pesticides. Food contamination by POPs can have a significant impact on food exports and imports. At the international level, limits for residues of persistent organochlorine insecticides have been established for a range of commodities. They are recognized by the World Trade Organization as the international reference in assessing nontariff barriers to trade. Because of this, international bodies are major players in the controversies over POPs.

Disposal of POPs

Most countries are facing the problem of disposal of some remaining POPs. This is a large controversy because of the cost of such disposal and the environmental and public health risks of not implementing it.

The strict requirements for proper disposal of these chemicals create an enormous burden for a developing country and its industries, both economically and technologically. Legal aspects of transboundary movement of POPs are very specialized and time-consuming. The temptation to dispose of POPs illegally can be strong.

Do POPs Ever Degrade Naturally?

There have been recent claims that POPs can degrade naturally. Some say it is a type of bioremediation. If this is the case, the cost of cleanups decreases dramatically because POPs can be left to degrade in place. Environmentalists generally prefer bioremediation because it usually has lower environmental impacts.

The controversy over whether POPs can be naturally degraded by microbial action is a long-standing one. New research indicates that this occurs for DDT. Research also

indicates that naturally occurring organisms in sediments play an important role in breaking down the chlorinated compounds. The finding that DDE, a toxic by-product of the pesticide DDT, can naturally degrade comes from laboratory experiments performed by researchers from Michigan State University's Center for Microbial Ecology. They used marine sediments collected from a Superfund site off the coast of southern California. Their research samples came from the Palos Verdes Shelf, the subject of one of the largest Natural Resources Damage Assessment cases in the United States. More than 20 years after they were deposited, DDT compounds are still present in surface sediments at levels harmful to life. But according to the Michigan State University microbiologist, the experiments do not prove that dechlorination is taking place at a significant rate in the sediments at the site. They do demonstrate that there are sediment microbes that can dechlorinate what was previously considered a terminal product.

The EPA's most likely plan for the Superfund site is to cover part of the ocean floor with a cap of thick sand, a project that could cost as much as $300 million.

Conclusion

The POPs list is likely to expand as our use and knowledge of them increases. So too will the list of potential alternatives to some POPs. Eliminating them from food chains and human breast milk will be a big first step when it eventually happens, but other more inclusive policy approaches will be more controversial. Waste disposal, bioremediation, cost of cleanup and who pays for it all remain debated and growing areas of environmental policy. The main front for the POPs controversy will remain the international environmental community in the form of treaties and international bodies like the United Nations. The issue of mandatory disposal is an emerging one and could shape the cleanup policies of hosting countries. Environmentalists fear an increase in illegal ocean dumping.

See also **Industrial Agricultural Practices and the Environment; Land Pollution; Pesticides; Water Pollution; Watershed Protection and Soil Conservation**

Further Reading

Bargagli, Roberto, *Antarctic Ecosystems: Environmental Contamination, Climate Change, and Human Impact.* New York: Springer, 2005.

Downie, David, *Northern Lights against POPs: Toxic Threats in the Arctic.* Montreal: McGill-Queen's Press, 2002.

Fiedler, H., ed., *Persistent Organic Pollutants.* New York: Springer, 2003.

Hanson, Larry G., and Larry W. Robertson, *PCBs: Human and Environmental Disposition and Toxicology.* Urbana: University of Illinois Press, 2008.

Harrad, Stuart, *Persistent Organic Pollutants: Environmental Behaviour and Pathways of Human Exposure.* New York: Springer, 2001.

Johansen, Bruce Elliott, *The Dirty Dozen: Toxic Chemicals and the Earth's Future.* Westport, CT: Praeger, 2003.

Mehmetli, Ebru, and Bogdana Koumanova, *The Fate of Persistent Organic Pollutants.* Dordecht: Springer Science/Business Media, 2007.

PESTICIDES

Robert William Collin

Chemicals used to kill insects, fungi, rats, and weeds are called pesticides. They can enter ecosystems and create damage. They can bioaccumulate up food chains and affect humans. Their widespread use makes environmentalists and communities uneasy despite improvements in public health due to their use. Some pesticide manufacturers label their products in confusing ways, which creates distrust. Some chemical manufacturers claim trade secrets when registering their pesticides with the EPA. Agribusiness points to high levels of productivity with their use. Many retail pesticides are sold every day to households. While pesticides are everywhere, many people are concerned about exposure and health risks from them.

People are also concerned about multiple exposures to pesticides. When those concerned are dismissed as hysterical housewives, the uneducated public, or extremist environmentalists, the seeds for controversy are sown. These are very serious concerns that demand explanation, and inadequate responses from government and industry do little to alleviate these concerns. Food and drinking water are sometimes contaminated from the same agricultural runoff. Some of the same pesticides used in industrial agriculture are also used in homes, hospitals, churches, schools, and day care centers. These are also places where vulnerable populations of the young, pregnant, and old can be more exposed. The human health effects from pesticide exposures are large. The large numbers of potentially affected people and the financial and social costs of exposure have not been considered in the formation of environmental policy around pesticides.

Questions about who is exposed to how much become questions about how much is safe for whom. There is a high level of concern around cumulative impacts and vulnerable populations that drives this controversy. Every niche of this controversy is laden with debating scientists, successful and unsuccessful lawsuits, agonizing government regulation and enforcement, and victims who will fight this issue to their literal death. The nature of the debate shows the intensity of this particular controversy. Some of the basic parameters of the current raging controversy about pesticide exposure of children are described by the Natural Resources Defense Council, a national U.S. environmental group. The summary findings of their research conclude as follows:

- All children are disproportionately exposed to pesticides, compared with adults, due to their greater intake of food, water, and air per unit of body weight, their

greater activity levels, narrower dietary choices, crawling, and hand-to-mouth behavior.

- Fetuses, infants, and children are particularly susceptible to pesticides compared with adults because their bodies cannot efficiently detoxify and eliminate chemicals, their organs are still growing and developing, and they have a longer lifetime to develop health complications after an exposure.
- Pesticides can have numerous serious health effects, ranging from acute poisoning to cancers, neurological effects, and effects on reproduction and development.
- Many pesticides that are never used indoors are tracked into the home and accumulate there at concentrations up to 100 times higher than outdoor levels.
- In nonagricultural urban or suburban households, an average of 12 different pesticides per home have been measured in carpet dust and an average of 11 different pesticide residues per household have been measured in indoor air in homes where pesticides are used.
- In an early 1990s nationwide survey of pesticide residues in urine in the general population, metabolites of two organophosphate pesticides, chlorpyrifos and parathion, were detected in 82 percent and 41 percent, respectively, of the people tested.
- In a rural community, all 197 children tested had urinary residues of the cancer-causing pesticide pentachlorophenol; all except 6 of the children had residues of the suspected carcinogen p-dichlorobenzene, and 20 percent had residues of the normally short-lived outdoor herbicide 2,4-D, which has been associated with non-Hodgkins lymphoma.

Pesticides in Agricultural Areas

The Natural Resources Defense Council did a special study of agricultural children and their exposure to pesticides, called *Trouble on the Farm: Growing Up with Pesticides in Agricultural Communities* (October 1998). Following is a summary of their conclusions.

- Children living in farming areas or whose parents work in agriculture are exposed to pesticides to a greater degree and from more sources than other children.
- The outdoor herbicide atrazine was detected inside all the houses of Iowa farm families sampled in a small study during the application season and in only 4 percent of 362 nonfarm homes.
- Neurotoxic organophosphate pesticides have been detected on the hands of farm children at levels that could result in exposures above levels designated safe by the U.S. Environmental Protection Agency (EPA).
- Metabolites of organophosphate pesticides used only in agriculture were detectable in the urine of 2 out of every 3 children of agricultural workers and in 4 out of every 10 children who simply live in an agricultural region.

- On farms, children as young as 10 can work legally, and younger children frequently work illegally or accompany their parents to the fields owing to economic necessity and a lack of child-care options. These practices can result in acute poisonings and deaths. (See http://www.nrdc.org/health/kids/farm/exec.asp/May 15, 2007.)

Kinds of Pesticides

Many different kinds of pesticides are in use today. Pesticides are referred to according to the type of pest they control.

Chemical Pesticides

Some examples of chemical pesticides follow. Other examples are available in sources such as *Recognition and Management of Pesticide Poisonings* (Reigart and Roberts 1999).

Organophosphate Pesticides

These pesticides affect the nervous system by disrupting the enzyme that regulates a chemical in the brain called acetylcholine. Most organophosphates are used as insecticides. Some are very poisonous. Both manufacturers of pesticides and government claim they are not persistent in the environment. Others claim they could be responsible for endocrine disruption in humans, as well as other nervous system impacts.

Pesticides and Public Health Protection

Pesticides have had a strong historical role in limiting threats to the public health. Many states and localities use them for this purpose. Pests that are public health threats are eradicated or contained by the application of pesticides. When the government is applying the pesticides, some members of the resident community may object. Some people simply want to be free from any chemical intrusion and want that choice respected. Controversy can flare up at this point with public pest-eradication programs reliant on widespread application of persistent pesticides. Some members of the public want such a program to eliminate pestilence. Exactly what is a pest for these purposes?

The central front in this type of pesticide controversy will often be the state agencies with responsibilities that include the use of pesticides. There are often the transportation departments that spray the side of the road with herbicides to keep weeds down. Weeds along a road can create a fire hazard in the hot, dry summer months of the United States.

When Is a Pest a Public Pest?

Protecting public health goes beyond the general mandate to ensure the required safety of pesticides sold on the market for pest control. The Federal Insecticide, Fungicide, and

THE LANGUAGE OF PESTICIDES

Whether a given pesticide is safe partially depends on the application. Pesticides are application-specific, and changes from these applications may pose hazards to people and the environment. Although many of these terms have complex legal meanings, a working knowledge of the basic terms gives depth to this controversy. These are basic terms in the pesticide literature and can be found in the references and Web resources at the end of this entry. Pesticides that are related because they address the same type of pests include the following:

Algicides: Control algae in lakes, canals, swimming pools, water tanks, and other sites.
Antifouling agents: Kill or repel organisms that attach themselves to underwater surfaces, such as boat bottoms.
Antimicrobials: Kill microorganisms (such as bacteria and viruses).
Attractants: Attract pests (for example, to lure an insect or rodent to a trap; however, food is not considered a pesticide when used as an attractant).
Biocides: Kill microorganisms.
Biopesticides: Certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain minerals.
Disinfectants and sanitizers: Kill or inactivate disease-producing microorganisms on inanimate objects.
Fumigants: Produce gas or vapor intended to destroy pests in buildings or soil.
Fungicides: Kill fungi (including blights, mildews, molds, and rusts).
Herbicides: Kill weeds and other plants that grow where they are not wanted.
Insecticides: Kill insects and other arthropods.
Microbial pesticides: Microorganisms that kill, inhibit, or outcompete pests, including insects and other microorganisms.
Miticides (also called acaricides): Kill mites that feed on plants and animals.
Molluscicides: Kill snails and slugs.
Nematicides: Kill nematodes (microscopic, wormlike organisms that feed on plant roots).
Ovicides: Kill eggs of insects and mites.
Pheromones: Biochemicals used to disrupt the mating behavior of insects.
Repellents: Repel pests, including insects (such as mosquitoes) and birds.
Rodenticides: Control mice and other rodents.

The term *pesticide* also includes these substances:

Defoliants: Cause leaves or other foliage to drop from a plant, usually to facilitate harvest.
Desiccants: Promote drying of living tissues, such as unwanted plant tops.
Insect growth regulators: Disrupt the molting, maturity from pupal stage to adult, or other life processes of insects.
Plant growth regulators: Substances (excluding fertilizers or other plant nutrients) that alter the expected growth, flowering, or reproduction rate of plants.

Rodenticide Act (FIFRA) requires the EPA, in coordination with the U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA), to identify pests of significant public health importance and, in coordination with the Public Health Service, to develop and implement programs to improve and facilitate the safe and necessary use of chemical, biological, and other methods to combat and control such pests. FIFRA defines the term *pest* as meaning "(1) any insect, rodent, nematode, fungus, weed or (2) any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other microorganism (except viruses, bacteria, or other microorganism on or in living man or other living animals) that the Administrator declares to be a pest under section 25(c)(1)."

The EPA has broadly declared the term *pest* to cover each of the organisms mentioned except for the organisms specifically excluded by the definition. Following is a brief description of the identified pests or categories of pests and an explanation for designating each as a public health pest.

- Cockroaches. Cockroaches are controlled to halt the spread of asthma, allergies, and food contamination.
- Body, head, and crab lice. These lice are surveyed for and controlled to prevent the spread of skin irritation and rashes, and to prevent the occurrence of louse-borne diseases such as epidemic typhus, trench fever, and epidemic relapsing fever in the United States.
- Mosquitoes. Mosquitoes are controlled to prevent the spread of mosquito-borne diseases such as malaria; St. Louis, Eastern, Western, West Nile, and LaCrosse encephalitis; yellow fever; and dengue fever.
- Various rats and mice. The listed rats and mice include those that are controlled to prevent the spread of rodent-borne diseases and contamination of food for human consumption.
- Various microorganisms, including bacteria, viruses, and protozoans. The listed microorganisms are the subject of control programs by public health agencies and hospitals for the purpose of preventing the spread of numerous diseases.
- Reptiles and birds. The listed organisms are controlled to prevent the spread of disease and the prevention of direct injury.
- Various mammals. The listed organisms have the potential for direct human injury and can act as disease reservoirs (i.e., rabies, etc.).

It is possible that this list may need to be changed. Should any additional species be found to present public health problems, the EPA may determine that it should consider them to be pests of significant public health importance under FIFRA. The EPA is supposed to update the list of pests of significant public health importance.

Pesticides and Food Quality

The Food Quality Protection Act placed requirements on the EPA related to public health and pesticides. The EPA considers risks and benefits of pesticides that may have public health uses. The EPA regulates certain pesticides that might be found in drinking water by setting maximum contaminant limits.

Pesticide Spray Drift: Another Case of Involuntary Exposure

Another controversial risk to public health is from pesticide spray drift. The EPA defines pesticide spray drift as the physical movement of a pesticide through air at the time of application or soon thereafter, to any site other than that intended for application (often referred to as off-target). This can affect the health of neighboring communities and farms, especially organic farms.

Pesticide drift can affect human health and the environment. Spray drift can result in pesticide exposures to farm workers, children playing outside, and the ecosystem. Drift can also contaminate a home garden or another farmer's crops.

There are many reported complaints of pesticide spray drift each year. Reports of exposures of people, plants, and animals to pesticides due to off-target drift are called drift incidents. They are part of an important component in the scientific evaluation and regulation of the uses of pesticides. The EPA is supposed to consider all of these routes of exposure in regulating the use of pesticides. A major criticism of the EPA approach is that it does not measure the cumulative effects of pesticide exposure. Another issue is the weak enforcement of this environmental protection policy. EPA policy relies on complaints of drift incidents and on labeling. This is often seen as a weak and ineffective response by many who are subject to repeated drift incidents. If no people are nearby, the environmental impacts of drift incidents may accrue over years, eventually working their way into land and water systems. This underscores the necessity of a cumulative and ecosystem risk analysis. The EPA allows some degree of drift of pesticide particles in almost all applications. It assumes pesticide applications are made in responsible ways by trained operators. This is not the case in many instances. In making their decisions about pesticide applications, prudent and responsible applicators must consider all factors, including wind speed, direction, and other weather conditions; application equipment; the proximity of people and sensitive areas; and product label directions. A prudent and responsible applicator must refrain from application under conditions that can cause pesticide drift. They decide whether or not to apply a pesticide. It is their responsibility to know and understand a product's use restrictions, but most do not. The practical result is potential human health effects from chemical overexposure.

The EPA conducts ecological risk assessments to determine what risks are posed by a pesticide and whether changes to the use or proposed use are necessary to protect the environment. Many plant and wildlife species can be found near or in cities,

agricultural fields, and recreational areas. Before allowing a pesticide product to be sold on the market, the EPA ensures that the pesticide will not pose any unreasonable risks to wildlife and the environment. They do this by evaluating data submitted in support of registration regarding the potential hazard that a pesticide may pose to nontarget fish and wildlife species.

Pesticides, Water Quality, and Synergy

When pesticides are applied on fields, gardens, parks, and lawns, some of the chemicals run off the treated site. More than 80 percent of urban streams and more than 50 percent of agricultural streams have concentrations in water of at least one pesticide, mostly those in use during the study period, that exceed a water-quality benchmark for aquatic life. Water-quality benchmarks, set by the EPA, are estimates of pesticide concentrations that the agency says may have adverse effects on human health, aquatic life, or fish-eating wildlife. Insecticides, particularly diazinon, chlorpyrifos, and malathion, frequently exceed aquatic-life benchmarks in urban streams. Most urban uses of diazinon and chlorpyrifos, as on lawns and gardens, have been phased out since 2001 because of an EPA-industry agreement. In agricultural streams, the pesticides chlorpyrifos, azinphos-methyl, p,p'-DDE, and alachlor are among those most often found above benchmarks. While the standard benchmarks were not exceeded for human health, recent studies and decades of incomplete risk assessments suggest that EPA benchmarks are severely underestimated. This is a very controversial scientific issue. If synergy and cumulative impacts increase public health risk, then new regulations with different standards could become law.

Pesticides seldom occur alone in the real world, but rather almost always as complex mixtures. Most stream samples and about half of well samples contain two or more pesticides, and frequently more. The potential effects of contaminant mixtures on people, aquatic life, and fish-eating wildlife are still poorly understood. Most toxicity information and the water-quality benchmarks are developed for individual chemicals. The common occurrence of pesticide mixtures, particularly in streams, means that the total combined toxicity of pesticides in water, sediment, and fish may be greater than that of any single pesticide compound that is present. Studies of the effects of mixtures are still in the early stages, and it may take years for researchers to attain major advances in understanding the actual potential for effects. A recent study by researchers at the University of California–Berkeley finds that pesticide mixtures harm frogs at levels that do not produce the same effects alone, often levels 10 to 100 times below EPA standards. This has implications for local governments and other water providers. Drinking water providers are faced with a dilemma about how to deal with the twin problem of killing dangerous bacteria while not increasing the chemical health risks for pregnant women and healthy infants. Pesticides are getting into the drinking water sources for

PESTICIDES: THE FIGHT IN CONGRESS

Pesticide regulation and control are very controversial issues in Congress. Presidential administrations also affect this controversy in different ways. One very controversial issue is whether pesticides should be tested on people. Most scientific studies generalize from mice or rats to humans. Some are concerned that this species generalization may be inaccurate, especially if the effects of other chemicals in the environment are considered. As the EPA and other governmental agencies struggle to develop standards and regulations around pesticides, the need for exact data increases. As environmentalists and toxic tort lawyers challenge industry in the courts, the need for data that support human injury also increases. However, most individuals, when given a free choice, choose not be tested for pesticide safety. A core question is whether safe standards for humans can be developed without testing pesticides on humans. Scientifically this may be difficult, but it is demanded by the public.

On June 29, 2005, one day after the George W. Bush administration's proposal to allow industry to test pesticides on people was leaked to the media, the Senate acted to block such testing. By a vote of 60 to 37, the Senate adopted a bipartisan amendment to the 2006 Interior and Environment appropriations bill, which blocks the U.S. Environmental Protection Agency from spending tax dollars to fund or review studies that intentionally expose people to pesticides. The U.S. Senate also voted 57 to 40 to adopt another amendment that requires the EPA to review the ethical ramifications of human pesticide testing.

millions of people in the United States. These contaminants combine with disinfectants, such as chlorine (added by drinking water providers to kill dangerous viruses, bacteria, and pathogens), forming disinfectant by-products that are associated with increases in birth defects and miscarriages. This drives the concern that the pesticides in our drinking water cannot be addressed by the chemical-by-chemical regulatory approach of government.

Research Needed

While the effects of pesticides increase, there is a continued need for more research. Pesticide controversies are tied to cumulative risk controversies and therefore will not decrease. Given recent scientific evidence of pesticide synergy, it is likely that public policy development will require more data and information to react and to plan for pesticide public health issues. This is an emerging issue that pits public health interests against chemical manufacturers of pesticides. It will be difficult for scientists to exercise independent professional judgment given the disparity of power and resources between the two interests.

PESTICIDES: INERT INGREDIENTS IN PESTICIDE PRODUCTS—ABOUT TOLERANCE REASSESSMENT

Pesticide Tolerances

How much of a chemical an individual can take before an adverse response occurs is called a tolerance limit, or a dose response. In investigating the safety of pesticides, researchers determine the tolerance limit for an average person. This model person was usually a 155-pound white male, among the healthiest demographic groups in U.S. society. There are two controversial problems with this method. There is a large dose-response variance in the U.S. population. Something as simple as aspirin can have a 100-fold dose-response difference. This model does not take vulnerability into account and thus underestimates actual risk from pesticides for many segments of the U.S. population. The second problem is that the approach of the U.S. Environmental Protection Agency (EPA) does not take into consideration the accumulated pesticide impacts on a given person. From the human health perspective, this is very important. One dose of a chemical may not kill you, but 10,000 small exposures could. The difference to the human body or to the environment—whether the exposure comes from one bad episode of pesticide drift or 10,000 exposures to residential lawn pesticides—is small.

The EPA sets limits on the amount of pesticides that may remain in or on foods. These limits are called tolerances. The tolerances are set based on a risk assessment and are enforced by the U.S. Food and Drug Administration. More information on tolerances is provided at the Web site for Pesticide Tolerances (www.epa.gov/pesticides/regulating/tolerances.htm).

Conclusion

Pesticide controversies will continue to dominate environmental policy in the courts, legislatures, agencies, and communities. They affect private households, local and state governments, big and small industries, agribusiness, the public health of communities, and many who rely on them. They have large impacts on the environment that may accumulate and bioaccumulate. Many do pose risks to vulnerable populations, and many more could if they mix with other chemicals in the real world. Who is to bear the risk of unknown harm, whether from pesticides or the lack thereof? Science will have a big role to play in this controversy, and there are politically powerful forces in opposition to each other about it.

See also **Cumulative Emissions; Food Safety; Industrial Agricultural Practices and the Environment; Land Pollution; Persistent Organic Pollutants; Water Pollution**

Further Reading

Beres, Samantha, *Pesticides: Critical Thinking about Environmental Issues.* Farmington Hills, MI: Greenhaven Press, 2002.

Levine, Marvin J., *Pesticides: A Toxic Time Bomb in Our Midst.* Westport, CT: Praeger, 2007.

Matthews, Graham A., *Pesticides: Health, Safety and the Environment.* Oxford, UK: Blackwell, 2006.

Nash, Linda Lorraine, *Inescapable Ecologies: A History of Environment, Disease, and Knowledge.* Berkeley: University of California Press, 2007.

Reigart, J. Routt, and James R. Roberts, eds., *Recognition and Management of Pesticide Poisonings.* Washington, DC: U.S. Environmental Protection Agency, 1999.

Wargo, John, *Green Intelligence: Creating Environments that Protect Human Health.* New Haven, CT: Yale University Press, 2009.

R

REPRODUCTIVE TECHNOLOGY

Anne Kingsley

In 1978 Louise Brown became the first "test tube" baby to be born using in vitro fertilization (IVF). Her birth marked the advent of a rapidly advancing reproductive science, and it also became a testament to a changing concept of creation. Her birth was not only a moment of celebration but also one of controversy. For some, IVF opposed traditional or religious beliefs about family and reproduction. Conception took place outside the body and outside the family and was altered through medical intervention. Many of the practices used in IVF and other assisted reproduction technologies (ART) challenged what was commonly thought of as the standard or normal family: one mother, one father, and children. A process such as egg or sperm donation, both of which take a third-party donor to create a fertilized embryo that will then be introduced into the female body using IVF, was therefore seen as counter to traditional family ideology and practice.

The success of IVF, however, opened new possibilities in the treatment of infertility. Proponents continued to see the practice as a means of conceiving a child where it otherwise may not have been possible. Many women who sought the treatment also supported this notion, considering the ability to conceive a child as their right. Today, the predominant public attitude toward assisted reproduction has shifted from wavering opposition to general acceptance. It is widely recognized and practiced as a standard treatment for infertility.

IN VITRO FERTILIZATION (IVF)

IVF is a process that enables a human embryo to be conceived outside the body. In IVF, eggs are collected using ovulation induction: hormonal drugs are given to induce the production of eggs. These are then removed from the ovary and placed in a lab dish (the "vitro" or glass) and fertilized. After several days, the fertilized eggs are transferred into the woman's uterus to continue growing. The practice of IVF introduced an exceptional level of human intervention into the reproductive process. It also suggested that life can be "altered" in the process. Although there are many assisted reproductive technologies available to women, IVF is the most utilized and successful.

Choices and Controversies

The phenomenal increase in the number of babies born using alternative methods of fertilization over the past 20 years testifies to the changing outlook on once controversial medical procedures. Furthermore, the demand for reproductive options opens the door to more avenues of scientific exploration to both refine existing reproductive technologies and search for new methods. Accompanying the unprecedented rate of scientific growth, however, is a growing concern over the extent of new plateaus in reproductive technology and their costs. As a result, a new set of controversies and a new set of medical, ethical, and social questions have emerged to shape debate over assisted reproduction.

The new story of reproduction is located at the intersection of shifting social values and a rapidly advancing scientific understanding. New technologies afford women the decision to postpone reproduction. Hypothetically, a woman in her thirties, working toward a successful career or further education, is well aware that with each year the possibility of having a healthy child and an uncomplicated pregnancy diminishes. She is also aware that alternative procedures such as freezing one's eggs give her the tentative option of conceiving at a chosen future date. The process does not guarantee reproduction, but it does open new considerations in terms of family planning. In a society where fertility and pregnancy are at odds with "career ladders" for women, proponents of new advancements in reproductive technology see it as affording more lifestyle and body choices without sacrificing the desire to also have a family.

Yet skeptics argue that the original design of the fertility treatment was meant to offer infertility options, not lifestyle choices. A controversy over age limits emerges in this conversation because some critics worry how far medical practice will go to allow older women to conceive, even after menopause. Since ART is a relatively unregulated field of practice, no restrictions in age exist thus far. Many of these questions carry both scientific and social implications. On the one hand, reproductive technology has allowed

women at many age levels to conceive and start a family. On the other hand, the increasing tendency to treat reproduction and conception as a medical issue has changed the traditional social narrative of the family. As prevalent as many of these controversies may be, their lack of resolution has not slowed the accelerating pace of further research and development.

New advancements and research in assisted reproductive technologies seek to make existing procedures more successful and more available to larger numbers of women. Newer processes mark not only how far we have come but also how far we may yet go. Advancements in reproductive technology create new controversies, many of which remain unaddressed.

Risks and Benefits

One of the predominant issues with infertility treatments is the long-term effect on both the woman and the child. As standard as many of the procedures in ART are, long-term results are relatively unstudied. After all, Louise Brown, who turned 30 in 2008, is still relatively young. New measures are being taken to set up systems of surveillance that track and record the progress, the effects, and the health of the constituents involved. Some critics question how far we should advance medicine without knowing the full set of risks to mother and child. Proponents of the advancement in reproductive technologies see such suspicion of potential risks as a means of limiting female choice, undercutting the availability of IVF.

One of the known complications of ART is the predominance of multiple births. To ensure that pregnancy takes place, multiple embryos can be placed within the woman's uterus, potentially resulting in multiple births. Newer technologies can help predetermine healthy embryos, thus reducing the possibility of multiple births before implantation takes place. Yet the same technology used to prescreen the embryos can also be applied to screening for a predisposition to genetic diseases and for sex. The prescreening allows the parents to make decisions before fetal pregnancy occurs. The process of prescreening and selection of healthy embryos raises questions about the role of medical selection and the alteration of life outside the body. Some critics fear that the list of prescreening traits may grow longer, resulting in the institution of *Brave New World* tactics, where "designer babies" and "designer families" are the results of "quality control."

Interestingly, one of the more pressing quandaries generated by ART is its proximity to cloning. The laboratory techniques generated by ART are the same as those used in cloning. However, in a process such as IVF, the fertilized egg is the result of two biological parents, whereas with cloning, the cloned cell is the exact copy of one parent. Regulations controlling both cloning and stem cell research may also pose restrictions to ART, given that all are seen as working within the embryonic stages of life.

New advancements in reproductive technology carry risks along with the benefits. Although the technology is often heralded as necessary progress, critics point out that

progress must be accompanied by bioethical responsibility. In other words, scientific research and its applications must be carefully understood and monitored for its ethical and moral implications.

Bioethical Considerations

Much of the current controversy in ART involves larger institutional practices rather than simply the medical procedures themselves. One such concern is the disposal of unused embryos. Here, the controversy intersects with the dialogue concerning post-coital contraceptive practices (such as the morning-after pill) and research practices in stem cell research—where does life begin? Proponents see the unused embryos, especially in stem cell research, as an opportunity for developing new treatments against disease. Opponents of using or destroying embryos, however, express concern over the increased power for science to manipulate fundamental definitions of life. Some critics even fear that the line between ethical and unethical practice gets ever more slippery as the limitations of embryonic research are further extended. Thus, ART again comes under scrutiny, requiring that more attention be given to regulations and limitations.

In order to address bioethical responsibility in assisted reproductive technology, some critics call for new measures in regulation. Those who call for regulation wish to monitor research practices more closely, including experimenting with new forms and methods of ART and medical practices actively applying existing methods of ART. Some women fear that "regulation" will equate to "restriction" of bodily rights, however, and certainly, determining bodily rights versus moral concerns is a difficult process.

An issue that may be overlooked is the potential of politicizing infertility as discussions of reproduction take place within scientific and political discourse. Reproductive technology, at one point, opened up a new agenda for women wanting both family and career. It was seen as a progressive move in the women's rights struggle. And yet, the politicization of the practice and the resultant discourse on "property rights" in terms of the female body, and the objectifying of women's bodies as a scientific or political event, may also be seen as regressive. It may be seen as counterproductive, as a woman's body becomes a space of experimentation—a scientific workplace.

Another pressing issue as ART moves into the arena of private industry is the blurring of the distinction between consumer and patient. Certainly, the capitalization of the reproductive technology market raises some concerns. ART is a $3-billion-a-year industry at the intersection of medical practice and private business.

Profit incentives facilitate the process of freezing, storing, and thawing eggs. That eggs have become a commodity is evidenced by the advertisements that blanket college newspapers offering to pay women for egg donations. For consumers, the concern or emphasis of the practice is on product. For patients, there is not only the health and practice concern but also an emotional concern. Skeptics say that a business is not equipped to handle a woman who, despite ART, cannot conceive a child. They question whether a

business attitude toward reproduction can answer and identify her needs. Supporters of ART maintain that the right technology, even if driven by economics, offers the best possible means of addressing infertility. On either side of the issue, the word *embryo,* not just as a scientific term but as a business one as well, takes on new connotations.

Many social implications result from considering fertility as a commercial business; one of these is that fertility becomes a question of affordability. Access to treatment becomes a question of who can pay and who can not. ART procedures are extremely costly. The fee for freezing eggs can be almost $10,000. The cost of hormone treatments to stimulate egg production can be another $4,000. The future in vitro fertilization of the eggs will cost around $15,000 to $20,000. Critics of the view that technology brings choice point out that financial cost can actually eliminate choice.

For example, infertility rates are much greater outside the United States; yet, because of the high cost, fewer people have access to the technology or treatment. In many countries, infertility comes at the cost of social exclusion, raising questions, again, about the intention of ART to provide an answer to a social need. Even inside the United States, many insurance policies do not provide for ART, excluding families who cannot afford the thousands of dollars the treatments often incur.

In addition, high costs do not necessarily equate to success. The process of assisted reproduction can offer only a possibility of a healthy pregnancy, not a guaranteed assurance of conceiving a child and bringing it to term. Less than half of the procedures performed result in infants carried to term. Critics point out that there is no reimbursement financially or emotionally for undergoing a process that fails in the end. At the same time, proponents maintain that ART practices offer the best possible solution to infertility.

Conclusion

Public dialogue on reproductive technologies is both steeped in controversy and pressingly necessary as our understanding and advancement of the science continues to move forward, creating many medical, ethical, and social questions along the way. Do these technologies oppose traditional family structures? Do lifestyle choices come at the cost of natural, biological practice? What should be the limits of ART as the biological and ethical implications become better understood? Whether for skeptics or for proponents, the advancement of reproductive technology will certainly challenge the intersection of science and society as social and ethical institutions come face to face with medical and scientific exploration.

See also **Biotechnology; Cloning; Eugenics; Genetic Engineering; Medical Ethics**

Further Reading

De Jonge, Christopher, and Christopher L. R. Barratt, eds., *Assisted Reproduction Technology: Accomplishments and New Horizons.* Cambridge, UK: Cambridge University Press, 2002.

Merrick, Janna C., *Reproductive Issues in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2003.

Mundy, Liza, *Everything Conceivable: How Assisted Reproduction Is Changing Men, Women, and the World.* New York: Knopf, 2007.

Naam, Ramez, *More Than Human: Embracing the Promise of Biological Enhancement.* New York: Broadway Books, 2005.

Winkler, Kathleen, *High Tech Babies: The Debate over Assisted Reproductive Technology.* Berkeley Heights, NJ: Enslow, 2006.

ROBOTS AND SOCIAL ROBOTICS

Jennifer Croissant and Selma Sabanovic

Long an inspiration for science fiction novels and films, the prospect of direct, personal, and intimate interaction between humans and robots is the focus of contemporary debate among scientists, futurists, and the public. The term *robot* comes from the play *R.U.R.,* for "Rossum's Universal Robots," written by Czechoslovakian author Karel Capek in 1920. In this play, humanoid automata overthrow and exterminate human beings, but because the robots cannot reproduce themselves, they also face extinction. This play was internationally successful at the time, engaging public anxieties produced by rapid industrialization, scientific change, and the development of workplace automation.

In the play, inventor Rossum's robots are fully humanoid. These forms of robot are sometimes referred to as androids, or gynoids for machines with feminine characteristics. Humanoid or anthropomorphic robots represent only one kind of robot, however. Robots vary in the degree of automation, as well as the extent to which they are anthropomorphic. The sophisticated animatronic human figures of amusement parks represent some of the best imitations of human movement, although these robots' programming controls all of their actions. Social robotics focuses on the representation of human communication and social interaction, although no systems to date are capable of independent locomotion, and they resemble human forms and faces only slightly. Industrial robots are designed not to mimic the human form at all but to efficiently conduct specific manufacturing processes. Industrial robots are the least humanlike in form and movement of all the forms of robots.

Levels of Control

The degree to which a robot is capable of autonomous or self-directed responses to its environment varies. Many if not most robotic systems are extremely limited in their responses, and their actions are completely controlled by programming. There are also robots whose actions are controlled directly by a human operator. For example, bomb-squad robots are controlled by a human operator who, using cameras and radio or other wireless connections, can control the detailed operations of the robot to defuse a bomb.

Only a handful of experimental systems have more than a very limited range of preset responses to environmental stimuli, going beyond rote conversations for social robots to simple algorithms for navigating obstacles for mobile robots. It has been, for example, very difficult to develop a reliable robot that can walk with a human gait in all but the most controlled environments.

These different levels of control connect robotics to cybernetics or control theory. The term *cybernetics* comes from the Greek term *kybernos,* or governor. There are many kinds of cybernetic systems. For example, the float in the tank of a toilet that controls water flow and the thermostat on the wall that controls temperature are simple forms of cybernetics where information about the environment (feedback) is translated into a command for the system. For floats, the feedback is of a straightforward mechanical nature. Thermostats use a very simple electrical signal to tell a furnace or air conditioner to turn on or off. Animatronics at amusement parks or complex robotic toys use information about the balance of the device and its location in relation to obstacles to compute changes in position, speed, and direction. The more complex the desired behavior or system and the more independent the robot is supposed to be, the more complex, and thus costly, the information needed in terms of sensors for collecting data, and the greater the computing power needed to calculate and control the possible responses of the device to its environment.

Debating Limits and Social Values

The cost and complexity of a robot with a broad range of responses to the environment point to the first of two controversies surrounding robotics. The first controversy surrounds the limits to automation on a theoretical level. Is there anything that cannot be done by a robot or automated system? The second set of controversies is about the desirability of robotic systems, particularly in terms of their impact on labor and economics. That is, even if we can automate something, should we? These two sets of controversies overlap in several places.

Debates about the limits to automation within the robotics and artificial intelligence communities have many dimensions. There are debates, for example, as to whether certain kinds of knowledge or action can be successfully automated. For example, can medical knowledge be fully captured in automatic diagnosis systems? There are also intense technical debates as to what algorithms or programs might be successful. Simple mimicry or closed programs that map out every possibility are considered weak in comparison with cost-effective and reliable substitutes for developing algorithms that can generate appropriate responses in a more open-ended system. One of the continuing debates has to do with the balance between anthropomorphism and specificity. Human beings are good at a lot of different tasks, so it is very difficult, and perhaps inefficient, to try to make robot systems with that degree of generalizability. A robot that can do one very specific thing with high accuracy may be far superior and

cost-effective, if less adaptable (and less glamorous) than a generalized machine that can do lots of things.

The most publicly debated controversies surrounding robots and robotics concern economics and labor. Superficially, robots replace human workers. But because robots lower production costs, their implementation can also expand production and possibly increase employment. The workers displaced may not get new jobs that pay as well as the jobs taken over by automation, however, and they may also be at a point in their working lives where they cannot easily retrain for new work. Robots as labor-saving technologies do not make sense in places where there is a surplus of labor and wages are very low.

The first implementations of robots into workplaces did displace human workers and often degraded work. Work was deskilled, as knowledge and technique was coded into the machine. This deskilling model holds for some cases of automation, but it also became apparent that these automatic systems do not always or necessarily deskill human labor. It is possible to adapt automation and computer systems to work settings in which they add information to work processes rather than extracting information from people and embedding it in machines. In the information systems approach, human labor is supported by data collection and robotics systems, which provide more information about and control over processes. The automation-versus-information debate has been complicated by office automation systems, which lead to debates about whether new technologies in the workplace centralize managerial control or decentralize decision processes in organizations.

Marx's labor theory of value is best at explaining the nuances of the economics of robotics implementation. In this theory, workers do not get the full value of their efforts as wages. The surplus is extracted by owners as profit. As the size of the labor pool increases, wages are driven downward and automation becomes economically undesirable. Skilled labor is the ideal target for automation because of the higher proportional wage costs, yet complex work is the most expensive to implement. Routine labor, often perceived to be low-skill, is targeted for replacement by robotic systems, but the economic benefits of automation for routine labor are ambiguous. To paraphrase Norbert Wiener, one of the fathers of modern cybernetics, anything that must compete with slave labor must accept the conditions of slave labor, and thus automation generally depresses wages within the occupational categories automated. Of course new jobs also emerge, to build and maintain the machines, and these are generally high-skill and high-wage jobs with a high degree of work autonomy. So, consider the automatic grocery-store checkout system. There are usually four stations and one clerk, and it seems to save the wages of at least three checkout clerks to have customers themselves using the automatic system. But the costs of design, implementation, and upkeep of these systems may be very high: the wages of one programmer may be more than that of the four clerks replaced. So it is not clear in the long term whether automatic checkout systems will save money for grocery stores or for customers.

Practical Considerations

There are two continuing problems confronting the implementation of robotics and automatic systems. The first is the productivity paradox, where despite the rapid increases in computing power (doubling approximately every 18 months) and the sophistication of robotics, industrial productivity increases at a fairly steady 3 percent per year. This huge gap between changes in technology and changes in productivity can be explained by several factors, including the time needed to learn new systems by human operators, the increasing costs of maintaining new systems, and the bottlenecks that cannot be automated but have the greatest influence on the time or costs associated with a task.

The second problem with robotics implementation is the perception of the level of skill of the tasks targeted for automation. For example, robots are seen by some groups of roboticists and engineers to be somehow suited for use in taking care of the elderly. The work of eldercare is perceived as low-skill and easy to conduct; it is also seen to be undesirable and thus a target for automation. Although the work is definitely low-paying and difficult, there may be a serious mismatch between the actual complexity of the work and the wages, leading to the labor shortage. The work of taking care of the elderly may not be as routine as it is perceived to be by outsiders and thus may be extremely difficult to automate with reliability or any measure of cost-effectiveness.

So perceptions about work as much as economic issues shape the implementation of robotic systems. These perceptions about the nature of work and the nature of robots play themselves out in popular media. In the 1920s, whether in Capek's *R.U.R* or the film *Metropolis* by Fritz Lang, robots on stage and screen represented sources of cultural anxiety about the rapid industrialization of work and the concentration of wealth. More recent films, such as the *Terminator* and *Matrix* series, are similarly concerned with our dependence on complex technological systems and robotics, and the extent to which robots take on lives of their own and render human beings superfluous. The media representations magnify real problems of worker displacement and questions about human autonomy that are embodied in robotic systems.

Social Robotics

Autonomous machines that can interact with humans directly by exhibiting and perceiving social cues are called social robots. They are the materialization of futuristic visions of personable, socially interactive machines popularized by fictional characters like *Star Wars*' R2-D2 and C-3PO, *The Terminator*'s T-800, and *AI*'s David. Topics of contention in social robotics concern the capability of machines to be social, the identification of appropriate applications for socially interactive robots, their potential social and personal effects, and the ethical implications of socially interactive machines.

Since the 1960s, the primary use of robots has been for repetitive, precise, and physically demanding jobs in factories and dangerous tasks in minefields, nuclear "hot spots,"

and chemical spills. In contrast, today's social robotics projects envision new roles for robots as social entities—companions and entertainers, caretakers, guides and receptionists, mediators between ourselves and the increasingly complex technologies we encounter daily, and tools for studying human social cognition and behavior. Although social robotics projects have their start in academic, corporate, and government labs, social robots are coming into closer contact with the general public. In 2003, Carnegie Mellon University (CMU) unveiled the world's first Roboceptionist, which gives visitors to the Robotics Institute information and guidance as it engages in humorous banter. Researchers in Japan have developed a number of different social robot prototypes and working models.

Human-Robot Interactions

Social robots are built with the assumption that humans can interact with machines as they do with other people. Because the basic principles of human–human interaction are not immediately obvious, roboticists have developed a variety of approaches for defining social human–robot interaction. In some cases, social roboticists use a range of individual traits to define social machines: the capacity to express and perceive emotion; the skill to engage in high-level dialogue; the aptitude to learn and recognize models held by other agents; the ability to develop social competencies, establish and maintain social relationships, and use natural social cues (gaze, gestures, etc.); and the ability to exhibit distinctive personality and character. Cynthia Breazeal describes Kismet, the first robot designed specifically for face-to-face interaction, as a "sociable robot." By using the term *sociable,* Breazeal emphasizes that the robot will be pleasant, friendly, and fond of company. Such robots, though potentially agreeable assistants, cannot be fully social because they would not be capable of the range of social behavior and affective expression required in human relationships. In qualifying robot sociality, Kerstin Dautenhahn uses a more systemic view and emphasizes the relationship between the robot and the social environment. She differentiates between "socially situated" robots, which are aware of the social environment, and "socially embedded" robots, which engage with the social environment and adapt their actions to the responses they get.

Although roboticists cite technological capabilities (e.g., processor speed, the size and robustness of hardware and software components, and sensing) as the main barrier to designing socially interactive robots, social scientists, humanities scholars, and artists draw attention to the social and human elements that are necessary for social interaction. Philosophers John Searle and Daniel Dennett contest the possibility of designing intelligent and conscious machines. Psychologist Colwyn Trevarthen and sociologist Harry Collins argue that humans may interpret machines as social actors, but the machines themselves can never be truly social. Social psychologist Sherry Turkle shows how social robots act as "relational machines" that people use to project and reflect on their ideas of self and their relationships with people, the environment, and new

technologies. Other social scientists argue that the foundation for human and possibly robot sociality is in the subtle and unconscious aspects of interaction, such as rhythmic synchronicity and nonverbal communication. These approaches suggest that gaining a better understanding of human sociality is an important step in designing social robots. Both social scientists and roboticists see robots as potentially useful tools for identifying the factors that induce humans to exhibit social behavior towards other humans, animals, and even artifacts.

Although it is generally agreed that a robot's appearance is an important part of its social impact, the variety of social robot shapes and sizes shows that there is little agreement on the appropriate design for a robot. David Hanson's K-bot and Hiroshi Ishiguro's Actroid and Geminoid robots resemble humans most closely, including having specially designed silicone skin and relatively smooth movements. These robots are known as androids. Along with humanoid robots, which resemble humans in shape, androids express the assumption that a close physical resemblance to humans is a prerequisite for successful social interaction. This assumption is often countered by the hypothesis that human reactions to an almost-but-not-quite-human robot would be quite negative, commonly known as the "uncanny valley" effect. In contrast, Hideki Kozima's Keepon and Michio Okada's Muu robots are designed according to minimalist principles. This approach advocates that a less deterministic appearance allows humans to attribute social characteristics more easily. Researchers often use a childlike appearance for robots when they want to decrease users' expectations from machines and inspire people to treat them like children, exaggerating their speech and actions, which makes technical issues such as perception easier. Surprisingly, research in human–robot interaction (HRI) has shown that machines do not have to be humanlike at all to have social

THE UNCANNY VALLEY

The "uncanny valley" hypothesis, proposed by Japanese roboticist Mori Masahiro, suggests that the degree to which a robot is "humanlike" has a significant effect on how people react to the robot emotionally. According to Masahiro, as a robot is made more humanlike in appearance and motion, humans will have an increasingly positive emotional response to the robot up to a certain point. When the robot resembles a human almost completely but not quite, people will consider it to be repulsive, creepy, and frightening—much as they do zombies and corpses. Once it becomes impossible to differentiate the robot from a human, the response becomes positive again. Although it is widely discussed and cited in social robotics literature, the uncanny valley hypothesis has not been experimentally tested. One of the difficulties is that the main variables involved, humanlike qualities and familiarity, are themselves quite complex and not easily defined.

characteristics attributed to them. People readily attribute social characteristics to simple desktop computers and even Roomba vacuum cleaners.

Finding a Place for Robots

Roboticists claim that social robots fundamentally need to be part of a society, which would include both humans and machines. What would a future society in which humans cohabit with robots look like? Information technology entrepreneurs such as Bill Gates forecast robotics as the next step in the computing revolution, in which computers will be able to reach us in ever more intimate and human ways. Ray Kurzweil, futurist and inventor, sees technology as a way for humanity to "transcend biology," and Hans Moravec claims that, by the year 2040, robots will be our cognitive equals—able to speak and understand speech, think creatively, and anticipate the results of their own and our actions. MIT professor Rodney Brooks views the robots of the future not as machines but as "artificial creatures" that can respond to and interact with their environments. According to Brooks, the impending "robotics revolution" will fundamentally change the way in which humans relate to machines and to each other. A concurring scenario, proposed by cognitive scientists such as Andy Clark, envisions humans naturally bonding with these new technologies and seeing them as companions rather than tools. In his famous *Wired* magazine article "Why the World Doesn't Need Us," Bill Joy counters these technologically optimistic representations of technological advancement by recasting them as risks to humanity, which may be dominated and eventually replaced by intelligent robots.

Views echoing Joy's concerns are common in American fiction, film, and the media. This fear of robots is colloquially known as the "Frankenstein complex," a term coined by Isaac Asimov and inspired by Mary Shelley's novel describing Dr. Frankenstein's loathing of the artificial human he created.

Robotics technologies are regularly suggested as viable solutions for social problems facing developed nations, particularly the steady increase in the elderly population and attendant rising demand for caretaking and domestic assistance services. The Japanese Robotics Association (JARA) expects advanced robotic technologies to be a major market by 2025. In May 2004, Japan's Ministry of Economy, Trade and Industry (METI) made "partner robots" one of seven fields of focus in its latest industrial policy plan. Visions of a bright future for commercial robots have been put into question by difficulties in finding marketable applications. Sony's AIBO, which was credited with redefining the popular conception of robots from that of automated industrial machines to a desirable consumer product, was discontinued in 2006. Mitsubishi did not sell even one unit of its yellow humanoid Wakamaru. Honda's ASIMO has opened the New York Stock Exchange, visited the European Parliament, shaken hands with royalty, and been employed by IBM as a $160,000-per-year receptionist, but Honda has yet to find a viable application for it in society at large.

ROBOTS AS CULTURAL CRITIQUE

Artists engage in robotics to provide cultural and social critiques and to question common assumptions. White's Helpless Robot upends our expectations of robots as autonomous assistants by getting humans to aid the immobile robot by moving it around. In the Feral Robotic Dogs project, Natalie Jeremijenko appropriates commercial robotic toys and turns them into tools that the public can use for activist purposes, such as exploring and contesting the environmental conditions of their neighborhoods. The Institute for Applied Autonomy's Little Brother robot uses cuteness to distribute subversive propaganda and circumvent the social conditioning that stops people from receiving such materials from humans. Simon Penny's Petit Mal and Tatsuya Matsui's robots Posy and P-Noir engage the assumptions of the robotics community itself and ask them to question their motives and approaches to building robots that interact with humans.

Similar concerns about applications have kept NEC from marketing its personable robot PaPeRo. In the United States, social robots such as Pleo and Robosapiens have been successful as high-tech toys. The most commercially successful home robotics application to date, however, is the iRobot vacuum cleaner Roomba, which had sold over 2.5 million units as of January 2008.

Ethical Concerns

Social robots bring up novel ethical challenges because both roboticists and critics envision them to have profound and direct, intended as well as unintended, impacts on humans as well as the environment. Even with their current limited capabilities, interactions with social robots are expected to change not only our understanding but also our experiences of sociality. Although social roboticists overwhelmingly focus on the potential positive influences of these machines, their emphasis on the technical challenges of making social machines can produce designs that have unanticipated consequences for their users, individuals who perform jobs for which the robots were designed, and society in general. Critics have questioned the effects that interaction with machines rather than humans can have on the quality of interaction, especially in the case of vulnerable populations such as children and the elderly. The introduction of robots into certain occupations—such as nursing, the caregiving professions in general, and teaching—is not always seen as a benefit to existing employees. People are concerned that they may have to work harder to compensate for the robot's deficiencies or that their work has been devalued and reduced to an unskilled, mechanical operation. The rise of unemployment that was experienced as a result of factory automation raises further concerns about the effects of robots taking over service sector jobs. The development of socially oriented robotic technologies also calls on us to consider the limitations and capabilities of our social institutions (family, friends, schools, government) and the pressures they

face in supporting and caring for children and the elderly (e.g., extended work hours for both parents, dissolution of the extended family and reliance on a nuclear family model, ageism and the medicalization of the elderly).

See also **Airport and Aviation Security; Biotechnology; Surveillance—Technological; Supply Chain Security and Terrorism (vol. 1)**

Further Reading

Breazeal, Cynthia, *Designing Sociable Robots (Intelligent Robotics and Autonomous Agents).* Cambridge, MA: MIT Press, 2002.

Noble, David, *Forces of Production: A Social History of Industrial Automation.* New York: Oxford University Press, 1986.

Reeves, Byron, and Clifford Nass, *The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places.* CSLI Lecture Notes. Stanford, CA: Center for the Study of Language and Information Publications, 2003.

Siciliano, Bruno, and Ousamma Khatib, eds., *Springer Handbook of Robotics.* Berlin: Springer, 2008.

Thomas, Robert J., *What Machines Can't Do: Politics and Technology in the Industrial Enterprise.* Berkeley: University of California Press, 1994.

Volti, Rudi, *Society and Technological Change,* 6th ed. New York: Worth, 2009.

Wallach, Wendell, *Moral Machines: Teaching Robots Right from Wrong.* New York: Oxford University Press, 2009.

Wood, Gaby, *Edison's Eve: A Magical History of the Quest for Mechanical Life.* New York: Anchor Books, 2002.

Zuboff, Shoshana, *In the Age of the Smart Machine: The Future of Work and Power.* New York: Basic Books, 1988.

Zylinska, Joanna, ed., *The Cyborg Experiments: Extensions of the Body in the Media Age.* New York: Continuum, 2002.

S

SOLAR ENERGY

Robert William Collin and Scott M. Fincher

As nonrenewable energy sources become depleted, proponents of investing in solar energy say the sun's daily presence justifies its development as an energy source. Questions about solar energy include economic arguments that it are not always cost-effective, and that location restrictions, such as the amount of sunlight in the North versus the South, impedes its use.

A tenet of U.S. environmentalism is conservation of natural resources. When electricity comes from burning gas, coal, or other materials, the cost of electricity can increase dramatically in a short time because many of these resources cannot be renewed. Fossil fuels and other power sources such as nuclear fission greatly affect environment in ways that range from damage during resource extraction to pollution and dangerous byproducts, including nuclear waste. The Deepwater Horizon oil rig disaster in the Gulf of Mexico in 2010 is an example.

Many developing nations adopt solar power because that is the only electricity available. Many countries have limited hours of electricity, if any at all. Power sources can be unreliable, with frequent brownouts. Solar power combined with low-power LED lights is currently bringing light to the night in villages in developing nations. Instead of relying on a complicated grid of wires to carry electricity from distant generating stations, solar power can be produced on site. This also greatly reduces its ecological footprint.

Discussion of alternative energy sources triggers debate about cost-effectiveness. These can be complex matters including utility rate structures; bond recovery rates;

local, state, and federal regulatory accommodations, and safety. Most measures of cost-effectiveness compare the new source with petrochemical sources. Because petrochemical depletion is contested, it remains an unknown factor in cost-effectiveness computations. Another debated assumption in these measures is the provider of the power. Solar energy can be home-generated, which is called "off the grid" power generation. In some areas the power company is required to buy back the excess power generated provided the correct monitoring mechanisms are in place.

Another tenet of environmentalism is saving power. Using less power is considered to reduce human effects on the environment. Frugal homeowners also find it a convenient way to save money.

Solar Energy Basics

The sun is our major source of energy. The conversion of sunlight to electricity or heat uses solar energy. There are many technologies and technological variations for this process. The most basic way is the use of photovoltaic systems to convert sunlight directly into electricity. Photovoltaic (PV) arrays commonly are used to generate electricity for a single residential or commercial building. Large PV arrays covering many acres can be combined to create a solar power plant, and large mirror arrays can be used to generate heat. In the latter, sunlight is focused with mirrors to create a high-intensity heat source. This heat then produces steam to run a generator, which creates electricity.

Solar water-heating systems for most residential and commercial buildings usually have two main sections. The first is a solar collector that is aimed so that it faces the sun as much as possible. Generally the longer and more direct the sunlight, the more power is created. The second section, which is connected to the solar collector, is a storage tank of liquid, generally water. It retains the heat generated by the solar collector. This heated water can then be used for heating, washing, cleaning, and other daily tasks.

Solar power can be used for anything that requires electricity. For the most part, it is used to heat water, which uses a lot of energy. Many residential and commercial buildings can use solar collectors to do more. Solar energy systems can heat buildings. A solar ventilation system can be used in cold climates to preheat air before it enters a building. Other than for buildings, solar power supplies energy to space missions, remote viewing and sensing outposts in wilderness areas, home motion-detector lights, and many other applications.

Passive Solar Heating

When architects design a building, they can develop an energy plan for it that incorporates using the sun. To use the sun efficiently requires strict compliance with the rules of nature at the particular site. If a design does this, it is considered to be using passive solar energy; once the building is built, the solar energy system demands little maintenance.

In the Northern Hemisphere, buildings designed to use solar energy require features such as large south-facing windows, building materials that absorb and slowly release the sun's heat, and a structure that can support tanks that might be holding water heated by the sun. Passive solar designs should include natural ventilation for cooling.

The way a building sits on a lot can have a large effect on the efficiency of passive solar energy. Many municipal zoning and land-use laws restrict how buildings, especially for residential structures, sit on a lot. Buildings often must be set back from the front, back, and side, creating an envelope around them. On a small lot, this will greatly constrain the direction the building can face, which can limit passive solar efficiency. This is one of many land-use issues related to solar power.

Environmental Requirements

The environmental requirements for solar power differ based on power usage. Often they are site-specific and not always readily available to a home buyer or builder. Essential environmental information is how much solar energy is available to a particular solar collector. The availability of or access to unobstructed sunlight for use both in passive solar designs and active systems is protected by zoning laws and ordinances in some communities.

Property Rights and the Sun

Access to the sun in cities has been controversial, whereas access to light and air is part of U.S. private property law. Solar access means having unobstructed, direct sunlight. Solar access issues emerged in the United States when commercial property owners sought to ensure that their investment in solar power was not obscured by shadows from a later nearby development. This can be contentious because solar access needs can clash with development rights of nearby property owners. Solar energy advocates say that communitywide solar access can greatly increase the efficiency of the solar collectors and lower the cost of energy.

Several communities in the United States have developed solar access land-use guidelines or ordinances; most have not done so. Many communities are entangled in debates over other issues, such as the erection of cellular telephone towers and ways of economic development. Powerful interests—such as real estate, banking, and mortgage-lending institutions—prefer traditional private property approaches, and many private property owners see mandatory solar access as an infringement on their rights. As a result, mandatory solar access can encounter community resistance. Environmentalists would like to see more protection for investment in solar energy. Many states now offer tax incentives for the development of alternative energy sources.

In the absence of access laws, landowners using solar power can avoid shadows by buying surrounding development rights, but that is a costly alternative. Governmental

entities can also exercise their power of eminent domain to achieve public purposes related to solar energy development.

Traditional zoning ordinances and building codes can create problems for solar access. Most pertain to the zoning envelope mentioned previously:

- Height
- Setback from the property line
- Exterior design restrictions
- Yard projection
- Lot orientation
- Lot coverage requirements

The most important solar access rule is making sure an installation faces the sun in a predominantly east–west direction. Common problems that landowners or developers who want to install solar power have encountered with building codes include the following:

- Exceeding roof load
- Unacceptable heat exchangers
- Improper wiring
- Unlawful tampering with potable water supplies.

Potential zoning issues include the following:

- Obstructing side yards
- Erecting unlawful protrusions on roofs
- Siting the system too close to streets or lot boundaries.

Special area regulations such as local community, subdivision, or homeowners' association covenants also demand compliance. These covenants, historic district regulations, and floodplain provisions can easily be overlooked.

Turning Solar Energy into Chemicals

How to store energy derived from the sun has been a central drawback to its use. In April 2010, microbial scientist Derek Lovley of the University of Massachusetts at Amherst found a way that turns 90 percent of carbon dioxide, a greenhouse gas, and some bacteria into fuel without further processing. His method, called "microbial electrosynthesis," is carbon-neutral—which means that it does not add greenhouse gases to the atmosphere. In addition, it is believed to use solar energy more efficiently than is done by plants. As such, it provides a solution to the storage problem because it immediately turns solar power directly into chemicals, which are then readily stored with existing infrastructure and distributed on demand.

Excitement over this innovation stems in part from the fact that no biomass or feedstock or arable land is required for the process. Similarly, far less water is required of the

process than, say, energy generated by nuclear means. And, no elaborate postproduction fermentation is required. Consequently this process does not produce any known toxic waste.

Conclusion

Voluntary consumer decisions to purchase electricity supplied by renewable energy sources are a powerful market-support mechanism for renewable energy development. Beginning in the early 1990s, a small number of U.S. utilities began offering green power options to their customers. Since then, these products have become more available, both from utilities and in states that have introduced competition into their retail electricity markets. Today, more than 50 percent of all U.S. consumers have an option to purchase some type of green power product from a retail electricity provider. Currently, about 600 utilities offer green power programs to customers in 34 states.

This burgeoning economic growth will push at the current constraints on the use of solar energy. As more information emerges about the environmental costs of petrochemical production, the amount of oil left, and the record-breaking profits made by multinational petrochemical corporations, communities and residents seeking more self-sufficiency will pursue solar power.

See also **Wind Energy; Sustainability (vol. 1)**

Further Reading

Asplund, Richard W., *Profiting from Clean Energy.* Hoboken, NJ: Wiley, 2008.

Inslee, Jay, and Bracken Henry, *Apollo's Fire: Igniting America's Clean-Energy Economy.* Washington, DC: Island Press, 2008.

Oldfield, Frank, *Environmental Change: Key Issues and Alternative Perspectives.* Cambridge, UK: Cambridge University Press, 2005.

Scheer, Hermann, *A Solar Manifesto.* London: James and James/Earthscan, 2005.

Simon, Christopher A., *Alternative Energy: Political, Economic, and Social Feasibility.* Lanham, MD: Rowman & Littlefield, 2007.

SPRAWL

Robert William Collin

Sprawl is the unconstrained growth of real estate and unplanned land development. It has detrimental environmental effects. Controlling sprawl requires land-use regulation that can decrease the value of some properties.

Problems with Sprawl

Sprawl refers to the inefficient use of natural resources and especially open land on the outskirts of communities. Antisprawl groups say it increases avoidable and unnecessary

environmental degradation. Poorly planned development threatens our environment, our health, and our quality of life in many ways. Sprawl spreads development out over large amounts of land, paving much of it. Because many of Americans do not live near where they work and because industrial, commercial, and residential lands tend to be separated, there are long distances between homes, services, and employment centers. This increases dependency on automobiles, a major source of pollution. Sprawl decreases routine pedestrian or bicycle traffic and can have a negative effect on individual and public health.

Because sprawl requires more paved roads and use of cars, it increases air and water pollution. Sprawl destroys more than two million acres of parks, farms, and open space each year.

The owners of the parks, farms, and open space sell their property on the private real estate market or have it taken unwillingly by government through eminent domain. Sprawl can begin when landowners in rural areas subdivide large tracts into smaller parcels for residential or commercial development. After this, counties or other governmental entities decide the minimum lot size allowed for development. Residential projects, called subdivisions, can be large or small, built all at once or in phases, and they increase demand for government services. Having more roads is one such service.

Sprawling development increases traffic on side streets and highways. It pulls economic resources away from existing communities and often puts them far away from a community's core. Local property taxes subsidize new roads, water and sewer lines, and schools as well as increased police and fire protection. An underlying concern about sprawl is that it leads to degradation of older towns and cities and to higher taxes. There also is concern that services like fire, police, sanitation, and education cost more because development is more spread out.

Critics assert that sprawl is an institutional force that combines tax policies, land speculation and an unrestrained profit motive. Others claim sprawl is simply the result of unrestrained market dynamics applied to land development for profit: they reason that people move to outlying areas because land is cheaper there.

Sprawl-Threatened Cities

U.S. cities are suffering from sprawl. Many municipalities may make up a given metropolitan area, and they can compete with one another to develop a high tax base with low service delivery. These communities seldom act with their region in mind except for some transportation planning. As a result, development can be a hodgepodge.

What are the actual descriptions of sprawl? What are the environmental effects? How do sprawl controversies unfold? Below are some examples.

Washington, D.C.

The District of Columbia has steadily lost population since 1970. The outermost suburbs have experienced growth. Open space is being rapidly allocated to commercial and residential structures, roads, parking lots, and strip malls.

A 2009 study by the Texas Transportation Institute of Texas A&M University ranked Washington second, behind Los Angeles, for time stuck in traffic.

Cincinnati, Ohio

Although the number of people moving into the Cincinnati metro area has not risen significantly in recent years (7.22 percent between Census 2000 and the 2008 Census population estimate), its land area has spread out steadily over the years: from 335 square miles in 1970 to 512 square miles in 1990, a 53 percent increase. The area grew by another 12 percent between 1990 and 1996. The Texas Transportation Institute estimates that the average rush-hour traveler spent an extra 25 hours in his or her car in 2007 because of congestion.

Kansas City, Missouri

The metro area has also been influenced by an extensive regional freeway system planned in the 1940s and white flight. Kansas City has paved miles of roads, sidewalks, curbs and even streambeds. Kansas City has more freeway lane miles per capita than any other city in the country. The percentage of work trips made by people driving alone is 79.7 percent, above the national average of 73.2 percent. Public transit is poor, and public transit ridership per capita in Kansas City is one-third the average of most other cities the same size.

Seattle, Washington

The Seattle metropolitan region is moving southward along the coast and eastward, closer to the Cascades mountain range. The metropolitan area grew in population by 13 percent from 1990 to 1996, much of it in the outer suburbs. During the same period, population grew by only 1.6 percent in Seattle's center city. Seattle's four-year-old urban growth boundary has helped slow down some of the unplanned sprawl.

Minneapolis–St. Paul, Minnesota

Between 1982 and 1992, Minnesota lost 2.3 million acres of farmland to development. Hennepin County, where Minneapolis is located, lost the greatest proportion: 29 percent. The rate of open space destroyed by development increased by almost 25 percent in the Minneapolis–St. Paul metro area overall. The number of people moving to the city's surrounding areas increased 25 percent in the 1980s and another 16 percent in the early 1990s. Few urban areas have experienced a faster-growing traffic problem than Minneapolis/St. Paul. The average rush-hour driver burned 14 gallons of extra fuel in 1992; that rose to 27 gallons in 2007, according to the Texas Transportation Institute.

Sprawl is a development pattern that affects all sizes of cities. It can have the same effects and controversies as in large cities.

The Five Most Sprawl-Threatened Medium-Size Cities (population 500,000–1 million)
Orlando, FL
Austin, TX
Las Vegas, NV
West Palm Beach, FL
Akron, OH

The Five Most Sprawl-Threatened Small Cities (population 200,000–500,000)
McAllen, TX
Raleigh, NC
Pensacola, FL
Daytona Beach, FL
Little Rock, AR

Alternatives to Sprawl

Hundreds of urban, suburban, and rural neighborhoods are using smart-growth solutions to address the problems caused by sprawl. Examples of smart-growth solutions include the following:

- More public transportation
- Planning pedestrian-friendly developments with transportation options; providing walking and bicycling facilities around services and parks
- Building more affordable housing close to transit and jobs
- Requiring greater public involvement in the transportation and land-use planning processes
- Requiring developers to pay impact fees to cover the costs of new roads, schools, and water and sewer lines and requiring environmental impact studies on new developments

Smart Growth

In response to sprawl, a movement to emphasize planning in land development exists under the name *smart growth*. Smart growth is development that serves the economy, the community, and the environment. It changes the terms of the development debate away from the traditional growth/no growth divide to "how and where new development should be accommodated." Underscoring the smart-growth movement is the premise of preserving open space, farmland, wild areas, and parks as necessary for a healthy environment and community. The question of how to stop sprawl is complicated, new in the United States, and controversial. Smart growth has garnered the support of some state legislatures. However, any loss of profit in the sale of private property because

of the local land-use rules required by smart growth will encounter stiff resistance from powerful lobbies of realtors, home builders, mortgage bankers, and others with a financial interest in land.

Ecosystem Preservation

Given the current U.S. checkerboard pattern of many competing municipalities in any given metropolitan area, any shift toward ecosystem preservation will be extremely difficult, but many claim that it is necessary. The shift is prompted by the realization that ecosystems are the appropriate units of environmental analysis and management. Wildlife must be managed as a community of interrelated species; actions that affect one species affect others. The open-space plan emphasizes connections to off-site habitat and preservation of corridors rather than isolated patches. It helps to preserve patches of high-quality habitat, as large and circular as possible, feathered at the edges, and connected by wildlife corridors.

Patches preserved in an urbanizing landscape should be as large as possible. In general, the bigger the size of land, the more biodiversity of species it can accommodate. Patches of 15 to 75 acres can support many bird species, smaller mammals, and most reptiles and amphibians. Wildlife corridors should be preserved to serve as land bridges between habitat islands. Riparian strips along rivers and streams are the most valuable of all corridors, used by nearly 70 percent of all species.

When land is developed, a large volume of storm water that once seeped into the ground or nourished vegetation is deflected by rooftops, roads, parking lots, and other impervious surfaces; it ends up as runoff, picking up urban pollutants as it goes. This change in hydrology creates four related problems. Peak discharges, pollutant loads, and volumes of runoff leaving a site increase as compared with predevelopment levels. By reducing groundwater recharge, land development also reduces base flows in nearby rivers and streams.

To mitigate the adverse impacts of development, there are two options: storm water infiltration and storm water detention. With infiltration, storm water is retained on site in basins, trenches, or recharge beds under pavements, allowing it to infiltrate into the ground. With detention, storm water runoff is slowed via swales, ponds, or wetlands but ultimately discharged from the site. Experts are beginning to favor infiltration as the only complete approach to storm-water management.

Where soils and water table elevations permit, infiltration can maintain the water balance in a basin and runoff before and after development using infiltration trenches, swales, different dams, and/or permeable pavements. Infiltration rates can be increased by means of infiltration basins and vegetated swales, created prairies, created wetlands, and a storm water lake to reduce runoff volumes. The swales and prairie lands clean and infiltrate runoff, while the wetlands and lake mitigate the effects of the remaining discharge. Turf is used only where it serves a specific purpose, such as erosion control

or recreation, rather than as fill-in material between other landscape elements. One visual preference survey found that lawns with up to 50 percent native groundcover are perceived as more attractive and less work (as well as much more natural) than are conventional turf lawns. Plants with similar irrigation requirements are grouped together into water-use zones (so-called hydrozones). Irrigation systems can then be tailored to different zones rather than operating uniformly. It is recommended that high-water-use zones (consisting of turfgrasses and plants that require supplemental watering year 'round) be limited to 50 percent of total landscaped area, and that drip or bubbler irrigation be used on trees, shrubs, and ornamentals. Even some of the most manicured developments are beginning to experiment with native plantings. One may expect to see more of the same as other developers discover that a palette of native and adapted plants is more economical and visually pleasing than is endless turfgrass.

The required environmental changes in our approaches to sprawl are severe in our current context. Many are nonetheless required. This assures that as they become more operational in education, business, and governmental practices they will also be controversial.

Conclusion

The land-use decisions made today could have the most important, long-term environmental consequences for future sustainability. Innovative thinking and foresight can facilitate the creation of green space in development plans and how urban communities can create green space from previously ignored areas. The vast majority of land is privately owned. As a result, individual landowners, developers, and local governments are the principal land-use decision makers. They do not always have the same vision and foresight regarding the environment if it affects their profit from the sale of the land.

U.S. metropolitan areas are spreading outward at unprecedented rates, causing alarm from Florida to California, from New Jersey to Washington State. Without changes in policy and practice, most new development will take the form of suburban sprawl, sprawl being this nation's now-dominant development pattern. The economic and social costs will be large. By designing with nature, developers can further the goals of habitat protection, storm water management, water conservation, and aquifer protection. Ways of furthering another environmental goal—air quality—can include natural amenities such as woodlands, hedgerows, slopes, rock outcroppings, and water bodies, which cost nothing in their pure state and are preferred by residents. Wild places (natural areas with nothing done to them at all) are a particular favorite with children. Greenbelts and other open spaces, if designed for physical and visual access, can enhance property values of nearby developable lands.

With increasing population and a strong, car-based transportation infrastructure, sprawl will continue. But strong environmental and public health values oppose the negative impacts of sprawl. With a long tradition of respecting private property but

with a need more brass-tacks environmental policies, controversies will continue to develop.

See also **Aging Infrastructure; Air Pollution; Transportation and the Environment; Water Pollution; Sustainability (vol. 1)**

Further Reading

Flint, Anthony, *This Land: The Battle over Sprawl and the Future of America.* Baltimore: Johns Hopkins University Press, 2006.

Garreau, Joel, *Edge City: Life on the New Frontier.* New York: Random House, 1991.

Gonzales, George A., *Urban Sprawl, Global Warming, and the Empire of Capital.* Albany: State University of New York Press, 2009.

Hayden, Dolores, *A Field Guide to Sprawl.* New York: W. W. Norton, 2004.

Mitchell, John G. "The American Dream: Urban Sprawl." *National Geographic Magazine Online Extra* (July 2001). http://ngm.nationalgeographic.com/ngm/data/2001/07/01/html/ft_20010701.3.html

O' Toole, Randal. *A Libertarian View of Urban Sprawl.* Cato Institute. March 18, 2010. http://www.cato-at-liberty.org/2010/03/18/a-libertarian-view-of-urban-sprawl

Soule, David C. ed., *Remaking American Cities: A Reference Guide to Urban Sprawl.* Lincoln: University of Nebraska Press, 2007.

Wolch, Jennifer, Manual Pastor, and Peter Dreier, eds. *Up Against the Sprawl.* Minneapolis: University of Minnesota Press, 2004.

STEM CELL RESEARCH

Anne Kingsley

The stem cell debate is high-profile science and front-page news. In 1998 scientists at the University of Wisconsin were able to purify and successfully culture embryonic stem cells that could be used to replace or regrow human tissue. These rare cells, with the ability to differentiate into a variety of other specialized cells in our bodies, evoke both wonder and skepticism as they dominate headlines. On the one hand, they promise new therapeutic opportunities for the treatment of destructive and debilitating diseases, including Parkinson's and Alzheimer's. On the other hand, the research raises many questions about the ethical responsibilities and limitations of scientific practice.

The discussion surrounding the use of these cells involves scientific, medical, moral, and religious concerns. Political considerations also enter the debate as people turn to policy to define, structure, and regulate the use of embryonic stem cells. In turn, vast attention to the debate captures a wide audience and accelerates passionate rhetoric from all sides. Even Hollywood has jumped into the debate, and spokespersons such as Michael J. Fox and the late Christopher Reeve have fueled media attention. Perhaps the best way to approach the stem cell debate is first to untangle its notoriety.

CELL DIFFERENTIATION

Cell differentiation is the process through which a stem cell becomes a more specialized cell. Embryonic stem cells are especially unique in that they can become all types of cells. Scientists work to direct stem cell differentiation to create cell-based therapies for diseases. This new research proposes methods to develop differentiated stem cell lines for replacement cells that could potentially be administered for clinical use.

Conflicting Views

Among the many contemporary controversies in science and medicine, that regarding stem cells stands out as one of the most discussed and least understood. The research discussion ranges from science and sociology to theology. In all of these arenas, no single consensus has been reached on the use of embryonic stem cells. What exactly is at stake?

All sides in the debate make religious, moral, and ethical claims. Interestingly, in the terminology of the debate, it is *immoral* to destroy life in any form, and it is simultaneously *immoral* to deny scientific advancement that could potentially cure devastating diseases. In this situation, government policy becomes a regulating force.

The body is made up of many different cells. Each cell is programmed for a specific function—for example, to form part of our skin, liver, or blood. Stem cells, however, are unique in that they have the ability to give rise to many different types of cells. A bone cell and a brain cell are not the same, but they originate from differentiated stem cells. Potentially, these cells can be used to grow new tissue. If science can understand how to control these cells, they could be used to replace damaged cells or even grow new organs in a petri dish. Scientific progress is motivated by the possibility of these medical benefits. For example, damaged neurons in Alzheimer's patients could possibly be replenished by healthy neuron cells produced by using stem cells.

The most effective stem cell for growing tissue is the embryonic stem cell; for this reason, it is at the heart of the controversy. It is not the stem cell itself that is controversial; rather, it is the practice of isolating these cells that fuels debates. Some stem cells are obtained from the tissue of aborted fetuses. Most embryonic stem cells to date, however, are acquired from unused embryos developed from eggs that have been fertilized. In vitro fertilization (IVF) can cause multiple embryos to develop, but only some are actually used to create pregnancy. The leftover embryos are frozen and often remain unused in fertility clinics. Researchers use these "spare" embryos to generate stem cell lines, a process that involves the destruction of the embryo.

The use of embryonic stem cells motivates the most publicly known debate: Should we destroy human embryos for the sake of research? The "moral status" of the stem cell is frequently under discussion. For proponents of embryonic stem cell use, the embryo itself does not constitute a fully formed life because it has not developed in the womb.

Furthermore, even if it is defined as life, other advocates see it as a justified means to an end. The use of these embryos could result in more lives saved, which is, overall, considered beneficial. For opponents, the fertilized egg marks the process of conception and therefore the onset of life. Even the embryonic stage is seen as a form of consciousness. Although it might be easy to divide the debate between science and religion—and this is often done—there is actually no consensus and no easy division between those who advocate and those who oppose stem cell research. For example, there are many religious advocates *for* stem cell research.

The first major government regulation of embryonic stem cell research was announced in 2001. Under federal funding policy, only existing lines of embryonic stem cells can be used for scientific purposes if researchers wish to be eligible for federal funding in the United States. These stem cells must come from unused embryos created under IVF, and the donor must consent to their use. No new lines can be produced, and no new embryos can be used.

Although these are national policies, the question of regulation is an international concern. Ethical debates over the concept of human life take place in multinational venues. In countries such as Great Britain, Japan, Brazil, and Korea there is still much debate over the limitations and regulations of embryonic stem cell research programs. These laws, worldwide, will undergo constant transformation depending on scientific breakthroughs, public acceptance, and political motivations.

These political demands motivate some researchers to find different means of producing stem cells. New practices often create new controversies, however. Adult stem cells may provide an alternative source, although they too have issues of their own. For one, they are difficult to isolate in the body, whereas a large subset of the cells in the embryo are stem cells. Even once they are found, adult stem cells are difficult to control and produce. In addition, many of the adult stem cells generate only particular tissues, usually determined by where the cell originated in the body. Despite these hurdles, scientists continue to make advancements using these cells.

Other research labs are turning to cell nuclear replacement, the same process used in cloning, to produce embryos without fertilization. Through this development, the research labs seemingly bypass the ethical debate of where life begins by creating unfertilized embryos. Because it is aligned with cloning, however, many people have regarded this procedure with uncertainty. Articles in the journal *Bioethics* suggest that current laws against federal funding of human cloning preclude going down this slippery slope. These articles also acknowledge that public concern may not be so easily assuaged.

There is concern about the value of continuing stem cell research in the midst of these heated debates. What is certain is that researchers are motivated by the hope of producing scientific breakthroughs that could offer advances in the areas of research and medicine. Yet there is also concern over the line between principle and practice. How does research become effective and safe clinical practice? Will it? These questions

CELL NUCLEAR REPLACEMENT

Cell Nuclear Replacement in stem cell research involves removing the DNA of an unfertilized egg and replacing it with the DNA of a cell from the body of the patient. Scientists can then force the egg to develop and divide as though it has been fertilized. The stem cells formed in the new embryo will have an exact DNA match to the patient, therefore reducing the risk of rejection. The process of cell nuclear replacement is also the same process that was used to clone Dolly the sheep. Although the method may steer away from the debate about the destruction of life, it is right in the middle of the debate on human cloning. In that light, the technique has been referred to as "therapeutic cloning," thereby associating the research with the clinical use of stem cells to treat disease.

propose that potential benefits may remain only possibilities. One real issue facing the clinical use of embryonic stem cells is the body's acceptance of the replacement cells. If the patient's body does not recognize the cells, the organs produced may be rejected.

There is also growing discussion of the economics behind stem cell use. Certainly the production of stem cell lines, the production of patents for procedures, and the potential profit for accumulating embryos for research all pose ethical questions. Stem cell research is an emerging moneymaking industry. We can see the guiding hand of economic influence when we look to a stem cell–friendly state such as California. Although federal laws maintain certain restrictions, individual regions can use their state funds to promote and recruit scientists for stem cell research. State policies could potentially create a disparity in where active stem cell research takes place. Funding measures in California have made it a hotbed for stem cell research and, in turn, a promising venue for large economic profits. Disparate funding measures across the country raise concern about the real goals of stem cell research, as science and business intersect.

One question of particular concern to bioethicists in the stem cell debate is to whom the benefit will accrue. Many bioethicists believe in the very real possibility of society benefiting from embryonic stem cell research. They still maintain concern about who will have access to these therapies if they are produced, however. Celebrities and influential figures might be able to afford treatment, but there would be many who could not. In this light, stem cell research has the potential of reinforcing existing social divisions or creating new ones. Despite these social concerns, the possible benefits of stem cell use continue to push stem cell research forward.

State of the Research

Rensselaer Polytechnic Institute in May 2010 received $2.45 million from the New York Stem Cells Science Program of the Empire State Stem Cells Board to create a sophisticated, state-of-the-art lab for basic stem cell research. Growing the cells and learning how to control their differentiation is the goal. Researchers will attempt to guide the

stem cell's development into specialized cell types used by the human body. This is the key scientific challenge of stem cell research today.

Conclusion

For many people, stem cells are the symbol of scientific innovation. They represent cutting-edge research at the frontiers of science. They also represent concern over the limits of science and the ability of science to determine the status of life. Perhaps most eye-opening, however, is the debate's representation of the intersecting lines of thought within scientific research. The stem cell controversy invites the languages of research, religion, ethics, and politics into one (as yet inconclusive) conversation.

See also **Biotechnology; Genetic Engineering**

Further Reading

Bellomo, Michael, *The Stem Cell Divide: The Facts, the Fiction, and the Fear Driving the Greatest Scientific, Political, and Religious Debate of Our Time.* New York: AMACOM, 2006.

Collins, Francis S., *The Language of Life: DNA and the Revolution in Personalized Medicine*. New York: Harper, 2010.

Fox, Cynthia, *Cell of Cells: The Global Race to Capture and Control the Stem Cell.* New York: Norton, 2007.

Holland, Suzanne, Karen Lebacqz, and Laurie Zoloth, eds., *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy.* Cambridge, MA: MIT Press, 2001.

Kass, Leon, "Ethical Issues in Stem Cell Research." In *Technology and Values: Essential Readings,* ed. C. Hanks. Malden, MA: Wiley-Blackwell, 2010.

Martialay, Mary, "$2.45 Million Grant To Support Stem Cell Research." *Medical News Today* (May 27, 2010). http://www.medicalnewstoday.com/articles/189976.php

Ruse, Michael, and Christopher A. Pynes, eds., *The Stem Cell Controversy: Debating the Issues,* 2d ed. New York: Prometheus Books, 2006.

Waters, Brent, and Ronald Cole-Turner, *God and Embryo.* Washington, DC: Georgetown University Press, 2003.

STOCK GRAZING AND THE ENVIRONMENT

Robert William Collin

The grazing of cattle, sheep, and goats provides food but also has environmental impacts. In some environments, stock grazing can be destructive. Stockmen use 70 percent of the U.S. West for raising livestock, and most of this land is owned by the public. Experts and environmental activists consider ranching to be the rural West's most harmful environmental influence.

Many animals naturally graze or eat plants such as grasses and leaves. Some animals and plants develop strong symbiotic relationships in the natural environment. Grazing

animals in nature can fill important parts of the food chain in a given ecosystem. Many predators rely on them for food. Humans learned that raising your own animals was easier and more reliable than hunting them. Since early civilization, humans have grazed animals such as sheep, cattle, and goats. With the advent of large moving herds of the same grazing animal, environmental impacts increased, especially over time and in the context of increasing human population. Increasing population and expanding development reduce the amount of pastureland available and can increase the environmental impacts on the pastureland that is left. Increasing population also increases demand for food. The demand for meat and animal products drives the overall production of meat and the need for efficient industrial production processes. Part of these more efficient processes is producing the most meat per acre, which may have environmental impacts. Producing meat from pastures generally requires a minimum pasture size, depending on pasture quality and grazing animal.

Global Context

Not all pastureland is affected by large stock grazing systems. Approximately 60 percent of the world's pastureland is covered by grazing systems. This is just less than half the world's usable surface. The grazing land supports about 360 million cattle and over 600 million sheep and goats. Grazing lands supply about 9 percent of the world's production of beef and about 30 percent of the world's production of sheep and goat meat. For an estimated 200 million people, grazing livestock is the only source of livelihood. For many others, grazing animals provide the basis for a subsistence lifestyle and culture.

U.S. Context

Ranching is big business in the United States. Although it is concentrated in the western United States, other states have some ranching interests. (Hawaii, for instance, has one of the biggest ranches in the United States in the Parker Ranch on Hilo.) One issue is the use of federal land for grazing. The federal government is a large landowner is western ranching states. In the western United States, 80 percent of federal land and 70 percent of all land is used for livestock grazing. The federal government grants permits to ranchers for their herds to use federal lands. The mean amount of land allotted per western grazing permittee is 11,818 acres. Many ranchers own both private property and permits from the federal government for ranching public land. The public lands portion is usually many times larger than the private one.

Cattle and sheep have always comprised the vast majority of livestock on public land. Cattle consume about 96 percent of the estimated total grazed forage on public land in the United States. There are some small public lands ranchers, but corporate ranchers and large individual operators control the market now. This is also an issue because some say that ranchers are exploiting the land with the aid of the U.S. government. Many of the permits involve long-term leases at below-market rates. Forty percent of federal

grazing is controlled by 3 percent of permittees. On the national scale, nearly 80 percent of all beef processing is controlled by only three agricultural conglomerates.

Environmental Challenges and Benefits

Stock grazing can damage the environment by overgrazing, soil degradation, water contamination, and deforestation. Seventy-three percent of the world's 4.5 billion hectares of pasture is moderately or severely degraded already. Livestock and their need for safe pastures is one reason for the cutting down of tropical rain forests.

Prolonged heavy grazing contributes to species extinction and the subsequent dominance by other plants, which may not be suitable for grazing. Other wild grazing animals are also affected by the loss of plant biodiversity. Such loss of plant and animal biodiversity can have severe environmental impacts. In sensitive environments, such as alpine and reclaimed desert environments, the impacts of overgrazing can be irreversible. Livestock overgrazing has ecological impacts on soil and water systems. Overgrazing causes soil compaction and erosion and can dramatically increase sensitivity to drought, landslides, and mudslides.

Actions to mitigate environmental impacts of overgrazing include preservation of riparian areas, place-sensitive grazing rotations, and excluding ranchers from public lands. Each one of these actions is controversial. Ranchers do not like being told by the government how to run their businesses and resist taking these steps because their implementation costs money. Excluding ranchers dramatically increases the intensity of the debate, but that is the preferred solution for many conservationists. The areas that benefit from these types of mitigation include the following:

- Grasslands, grassy woodlands, and forests on infertile, shallow, or skeletal soils
- Grassy woodlands and forests in which trees constrain grass biomass levels and prevent dominant grasses from outcompeting smaller herbs
- Other ecosystems on unproductive soils that occur among grassy ecosystems within managed areas

Conclusion

Given climate change, population growth, and the dependence of people on grazing animals, it is likely that this controversy will become more intense. In the United States, perceptions of a vested property right in U.S. land by ranchers, their families, and their communities clash with the reality that this is land held in trust for all citizens of the United States. As environmental restrictions on grazing on public and private lands challenge this perception, courts and federal agencies will be front-and-center issues in this controversy. As concern about endangered species and sustainability rises, so too will these issues enter this controversy.

See also **Climate Change; Endangered Species; Federal Environmental Land Use; Global Warming**

Further Reading

Davis, Charles E., *Western Public Lands and Environmental Politics.* Boulder, CO: Westview Press, 2000.

Robbins, William G., and William Cronon, *Landscapes of Conflict: The Oregon Story, 1940–2000.* Seattle: University of Washington Press, 2004.

Vaughn, Jacqueline, *Conflicts over Natural Resources: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

SURVEILLANCE—TECHNOLOGICAL

Kathryn E. Scarborough, Pamela A. Collins, and Ryan K. Baggett

Surveillance, especially technological surveillance, has been and continues to be one of the most controversial of tactics being used by law enforcement authorities today. In the world after the attacks of September 11, 2001, we have been bombarded with new concerns of terrorism that have caused us to rethink our positions concerning what we will accept for safety and security in a seemingly more threatening world than we knew prior to 9/11. We have decided in some cases to allow practices that were once considered invasions of our privacy, as it is contended that they contribute immensely to our safety and security. In other cases, however, we have decided that while our safety and security are of the utmost importance, certain practices reach beyond the scope of what is acceptable and infringe upon our most basic guarantees granted by the various legal instruments that have survived the test of time.

Surveillance has been a popular tactic for police, security, and other public safety personnel for decades. Since the earliest forms of surveillance were utilized, which primarily relied on humans for their operations, both professionals and the public have supported the tactic of monitoring people, places, and things and gathering information in a variety of settings. As technology has advanced, so have the forms of surveillance. Beginning with Signals Intelligence (SIGINT) during World War I, technological surveillance has expanded into a virtual catalogue of equipment of varying levels of complexity for numerous uses.

Background

Technological Surveillance (TS) refers to technologies that are used for the sole purpose of identification, monitoring, tracking, and control of assets, individuals, and information. Although surveillance can also refer to simple, relatively no- or low-technology methods such as direct observation, it is used in this context to describe the various technological

methods used for the purpose of recording information. The literal translation of the word *surveillance* (in French) is "watching over," and the term is often used to describe various forms of observation.

There are many views as to the application and effectiveness of TS, especially in a post-9/11 environment. For example, many often argue that in order to have greater safety and security, we must place a greater reliance on the use of TS. In other words, they accept the notion that there is a trade-off between privacy and enhanced security. Others believe that there does not necessarily have to be a trade-off or sacrifice between increased surveillance and security and individuals' civil liberties. Still others argue that these are actually the wrong questions to ask and serve more to cloud the real issue, which is how surveillance serves as a trade-off that promotes "spatial segregation and social inequality" (Monahan 2006).

A distinction must be made with regard to the specific type of technology being used. Based upon the works of both David Lyon (2006) in his article "Surveillance after September 11, 2001" and Kirstie Ball and Frank Webster (2003) in their text, *The Intensification of Surveillance,* technological surveillance can be categorized into four distinct typologies: categorical suspicion, categorical seduction, categorical care, and categorical exposure.

Categorical suspicion relates specifically to surveillance that focuses on the identification of threats to law and order by common criminals, organized crime, dissidents, and terrorists. Categorical seduction addresses the tactics used by marketers and their attempts to study and predict customer behavior in attempts to hone their advertising and methods for luring in customers. Categorical care surveillance is used primarily by the health and welfare services, for example, to manage health care records in an attempt to monitor "at-risk" groups, study geographic health trends, and collect and manage extensive records of clients. Finally, categorical exposure was coined to describe the development of the ever-increasing intrusive character of the media. This is best illustrated by the tabloid press and the antics of many in the media, such as those that contributed to the automobile crash and subsequent death of Diana, Princess of Wales.

Types of Technological Surveillance

There are numerous technologies used for surveillance applications, such as eavesdropping, wiretapping, closed circuit television, global positioning systems, computer surveillance, and radio frequency identification device (RFID) tracking. Eavesdropping refers to the process of gaining intelligence through the interception of communications. This interception can include audio, visual, and data signals from various electronic devices. Generally, eavesdropping consists of three principal elements: a pickup device, transmission link, and listening post. The pickup device, usually a microphone or video camera, picks up sound or video and converts them to electronic impulses. The transmission link can be a radio frequency transmission or wire that transmits the impulses to a listening

post. Finally, a listening post is a secure area where the signals can be monitored, recorded, or retransmitted to another area for processing (Rao 1999).

Wiretapping is the monitoring of telephone and Internet conversations by a third party, often by covert means. *Lawful interception* refers to legalized wiretapping by law enforcement or other recognized governmental authorities. In 1994, the Communications Assistance for Law Enforcement Act (CALEA) was passed. This legislation gave law enforcement agencies the authority to place wiretaps on new digital wireless networks. CALEA also requires carriers to make their digital networks able to support law enforcement wiretapping activities (CALEA 2007). A covert listening device (commonly referred to as a "bug") is a combination of a miniature radio transmitter and a microphone. Bugs come in various shapes and sizes and can be used for numerous applications. While the original purpose of a bug was to relay sound, the miniaturization of technology has allowed modern bugs to carry television signals. Bugs can be as small as the buttons on a shirt, although these have limited power and operational life (Pinpoint Productions 2005).

Closed circuit television (CCTV) is a visual surveillance technology designed for monitoring a variety of environments and activities. CCTV systems typically involve a fixed (or "dedicated") communications link between cameras and monitors. The limits of CCTV are constantly extended. Originally installed to deter burglary, assault, and car theft, in practice most camera systems have been used to combat "antisocial behavior," including many such minor offenses as littering, urinating in public, traffic violations, obstruction, drunkenness, and evading meters in town parking lots (Davies 1996, 183).

A global positioning system (GPS) tracking unit determines the precise location of a vehicle, person, or other asset to which it is attached and has the ability to record the position of the asset at regular intervals. The recorded location data can be stored within the tracking unit, or it may be transmitted to a central location database, or Internet-connected computer. This allows the asset's location to be displayed against a map backdrop either in real time or when analyzing the track later, using customized software (Clothier 2004).

A bait car is a vehicle that has been equipped by a law enforcement agency with the intent of capturing car thieves. Special features may include bulletproof glass; automatic door locks; video cameras that record audio, time, and date; and the ability to disable the engine remotely. Some law enforcement agencies have credited bait-car programs with reducing auto thefts by more than 25 percent. Additionally, insurance companies have begun buying cars for police, because over a million automobiles are stolen each year in the United States (Eisler 2005).

Surveillance aircraft are used for monitoring activity from the sky. Although these aircraft play a major role in defense operations, they are also being used in the civilian world for applications such as mapping, traffic monitoring, and geological surveys. These aircraft have also been used by law enforcement for border surveillance to prevent

JAMES PATRICK BULGER

On February 12, 1993, James Patrick Bulger was abducted from a Merseyside (United Kingdom) shopping mall and subsequently murdered. James was a two-year-old toddler and his murderers were two 10-year-old boys, Jon Venables and Robert Thompson. As expected with a crime of this nature, the tragedy caused shock and grief throughout Liverpool and the surrounding towns. Additional attention was paid to this case because the abduction of the two-year-old from the mall was caught on closed-circuit television (CCTV). The fuzzy images from the abduction were replayed night after night on the national news. While CCTV had not managed to prevent the killing, the ghostly images at least held out the prospect that the culprits would be caught.* The two boys were arrested and sentenced to a minimum of 10 years in prison. Thompson and Venables were released in June 2001, after serving eight years (reduced for good behavior).

Due to the anxiety brought about by the Bulger tragedy, the number of surveillance systems in the United Kingdom dramatically increased. One example was a "City Challenge Competition" sponsored by the home secretary, who allocated government money to fund open street CCTV. The home office was overwhelmed by applications and ultimately increased both the amount of allocated funding as well as the number of cities that were funded.**

*D. Smith, *The Sleep of Reason: The James Bulger Case*. London: Century Arrow Books, 1994.

**C. Norris, M. McCahill, and D. Wood, "The Growth of CCTV: A Global Perspective on the International Diffusion of Video Surveillance in Publicly Accessible Space." *Surveillance and Society CCTV Special* 2, nos. 2/3 (2004): 110–135.

smuggling and illegal migration. Surveillance aircraft can be both manned or unmanned planes, such as the unmanned aerial vehicle (UAV). A UAV is a powered aerial vehicle sustained in flight by aerodynamic lift and guided without an on-board crew. It can fly autonomously or be piloted remotely (UAV RoadMap Meeting 2005).

Computer surveillance is the act of monitoring computer activity without the user's knowledge by accessing the computer itself. The majority of computers in the United States are equipped with network connections that allow access to data stored on the machine. Additionally, malicious software can be installed on the machine that provides information on the user's activity. One way to conduct computer surveillance is through packet sniffing, whereby data traffic is monitored coming into and out of a computer or network. Also, a keystroke logger can be implanted in the keyboard, perhaps broadcasting the keystroke sequence for pickup elsewhere. Finally, with the miniaturization of electronics, hidden cameras can be used to monitor keystrokes and display images (Bonsor, n.d.).

Radio frequency identification (RFID) tracking devices can be embedded in clothing or in devices or objects that are carried, such as building access badges. The RFID's

capabilities set this technology apart from traditional identification devices such as bar codes. For example, RFID tags can be read at a longer distance, because this technology does not require a line of sight. Additionally, the technology is relatively invisible to others (Stapleton 2005).

Technological Surveillance Theories and Research over Time

Although surveillance as a topic for research and study has increased in popularity and interest in just the years following the events of 9/11, this is not a new area of study. What has changed are the advances in various technology systems and the scope and reach of technological surveillance (Webster and Robins 1986). Some of the early researchers that began to examine the implications of TS included Michel Foucault, who is best known for his book titled *Discipline and Punish,* published (in English) in 1979 and credited with being critical to the dialogue and debate surrounding electronic surveillance. Others that followed criticized Foucault and suggested that a greater analysis and understanding of contemporary electronic technology-dependent surveillance was needed (Zuboff 1988).

During this earlier period of debate there was a discussion of Foucault's panopticon (Foucaultian panopticon) and its application to the design and construction of prisons. He presented this approach as a model for understanding the operation of power in contemporary society (Foucault 1979). Foucault's work, along with the 17th-century writings of Jeremy Bentham on the panopticon (1995), resulted in the panopticon being considered the leading scholarly model or metaphor for analyzing surveillance.

Traditionally, panoptic surveillance related primarily to the monitoring of people rather than more general surveillance. For example, panoptic surveillance has not been used to describe other types of technological surveillance, such as environmental surveillance. Environmental surveillance involves the use of satellites and imaging, which now allows for very detailed analysis of both dramatic changes to the earth's surface following tsunamis as well as subtle changes that measure migration or water levels. Therefore it has been suggested that panoptic surveillance has not kept pace with the significant changes taking place in technological surveillance, such as the use of sensors, satellites, biometric devices, DNA analysis, chemical profiling, and nanotechnology, all of which have been described as tangentially panoptic. Another limitation of panoptic surveillance is that is does not account for the role or importance of the watchers. Nevertheless, this postpanoptic surveillance theory remains an important historical model for the early debate on surveillance and continues to be referred to in ongoing technological surveillance research studies (Haggerty 2006).

Another theory worth noting is the "space and time in surveillance theory," which suggests that there are "zones of indistinction" that unlike the postpanoptic surveillance theory, which was a distinct and bounded area, there is a shift from spaces of surveillance as territories to deterritorialization and time is seen not as an outcome of computerization or social sorting in "real time" (Bogard 2006). In other words, surveillance is

important not in what it captures in real time but for its importance in "capturing" the future before it's "already over" (Genesko and Thompson 2006). For example, casinos use facial recognition software to identify known suspects who have been banned because of techniques used to "cheat the system."

Authors such as Elmer and Opel (2006) make the argument that we now live in a "survivor society" in which citizens are called upon to suspend disbelief, a preemptive requirement to act, a movement from "what if" scenarios to "what then" scenarios that accept that the U.S. administration has things well under control. They argue that using a "what then" approach, rather than a "what if" approach, presupposes an event will occur rather than the latter approach, which allows for the possibility of preventing an event from occurring at all. The "what then" approach removes all control from the citizenry and assumes that in spite of all of our best efforts we cannot prevent the inevitable, and therefore a higher authority must intervene that knows what is in the best interest of the society or organization. Space and time surveillance theorists argue that technological surveillance functions in an environment in which evidence is not needed to act or set national policy. The danger with this theory is that because the future is "deemed inevitable," instead of a forecasting model approach, we now rely on an approach that is not focused on tracking and monitoring behavior but that stymies social critique and political debate.

Moving from the theoretical studies and research to the more applied research and evaluation, studies reveal that there has been little work done to evaluate the overall effectiveness of many of the technological surveillance systems. We need only turn to the United Kingdom (UK) to look for research on the effectiveness and widespread use of CCTV systems. The tipping point, if you will, for the greatest expanse and proliferation of the use of CCTV in the UK, came after the 1993 James Bulger killing. In this case two 10-year-old boys kidnapped and killed two-year-old James Bulger. The shopping mall where James was kidnapped had CCTV in place and the two older boys were seen leading him by the hand out of the mall. At the time of this incident there was broad sweeping support for the proliferation of public surveillance, and since that time the UK now has one of the most extensive and high-density CCTV systems in the world. There are estimated to be nearly 4 million cameras throughout the UK, and approximately half a million of those cameras are located in London (Norris 2002).

In spite of the widespread use of CCTV in the UK, much of the research that has been done on the effectiveness of this type of technological surveillance system has been inconclusive. For example, a recent study on CCTV in the UK by the *Christian Science Monitor* suggests that after 10 years of research projects at a publicly funded expense of $420 million dollars, the research does not support the use of CCTV. Moreover, the study concluded that although cameras were effective in reducing vehicular crime, they had little to no effect on other crimes; in fact, street lighting appeared to be more effective in reducing other crimes (Rice-Oxley 2004).

Research on CCTV and other TS systems in the United States is not as prevalent because the use of CCTV is not as widespread, nor is it a public initiative. The private sector, the military, and the government primarily use CCTV in the United States In cases where it is used by public safety organizations, and more specifically law enforcement, there is little to no evaluation conducted to assess its effectiveness. The study that is most often cited as demonstrating that the use and application of CCTV was not effective in reducing crime was the study by Musheno, Levine, and Palumbo (1978) of low-income housing. They concluded that the use of video surveillance in New York City's public housing did not reduce crime or fear of crime. According to these authors, the system failed on two levels, conceptual deficiencies and technical limitations.

In a more recent study of a public housing complex in Buffalo, New York, researchers found that drug dealers were not deterred by the CCTV system in place but instead used the system to assist in the expansion of their operation by monitoring the arrival of customers and watching for local police (Herbeck 2004). Another recent study demonstrated benefits of a CCTV traffic light system in Washington, D.C., which reduced red light traffic violations by 63 percent. With the expansion of technological surveillance in the United States following 9/11, there will be greater opportunities to research and evaluate the many systems that are being put into place.

Conclusion

Knowing the theoretical underpinnings of any technology usually benefits the user and those taking advantage of the technology. Research helps consumers understand how the technology improves and in some cases is made more versatile for numerous situations. As we frantically searched for reactive tactics and procedures to allow us to improve the safety and security after 9/11, knowing the range of availability with respect to different types for different circumstances gave us some sense of solace as we struggled with living in our "new" world. Recognizing the evolution of technological surveillance and understanding that, with time, it will only continue to improve and reach beyond what we know now also gives us a sense of comfort as we wait for whatever challenges we may face. At the same time, however, we are reminded as to just how much intrusion we will or can allow in order to maintain those privileges that we so cherish as the basic foundations that make us Americans, in the land of the free and the home of the brave. Now we struggle with these issues while we anxiously await the next threat to our safety and security in our ever-changing world. Our immediate reactions to incidents tend to be radical, and once time passes, we take a step back and reconsider what is best to accomplish the goals of our public safety and law enforcement professionals. We expect to be saddled with decisions like this for the remainder of time. In retrospect, it is necessary, or better yet imperative, that we challenge ourselves with the wealth of information that we are afforded and make the best decision, for greater good, to maintain what makes us Americans in the nation we so highly value.

See also **Airport and Aviation Security; Supply Chain Security and Terrorism (vol. 1); Border Fence (vol. 2)**

Further Reading

Ball, Kirstie, and Frank Webster, eds., *The Intensification of Surveillance: Crime, Terrorism and Warfare in the Information Age.* Sterling, VA: Pluto Press, 2003.

Bentham, J., *The Panopticon Writing,* ed. M. Bozovic. London: Verso, 1995.

Bogard, W., "Surveillance Assemblages and Lines of Flight." In *Theorizing Surveillance: The Panopticon and Beyond,* ed. D. Lyon. Portland, OR: Willan, 2006.

Bonsor, K., "How Workplace Surveillance Works." n.d. http://computer.howstuffworks.comworkplace-surveillance.htm

Clothier, J., *GPS Surveillance to Keep Kids Safe.* 2004. http://www.cnn.com

Communication Assistance to Law Enforcement Act, 2007. http://www.askcalea.net

Davies, S., *Big Brother: Britain's Web of Surveillance and the New Technological Order.* London: Pan Books, 1996.

Eisler, P., "High-Tech 'Bait Cars' Catch Unsuspecting Auto Thieves." *USA Today* (November 2005).

Elmer, G., and A. Opel, "Pre-Empting Panoptic Surveillance: Surviving the Inevitable War on Terror." In *Theorizing Surveillance: The Panopticon and Beyond,* ed. D. Lyon. Portland, OR: Willan, 2006.

Farren, Mick, and John Gibb, *Who's Watching You? The Truth about the State, Surveillance, and Personal Freedom.* New York: Disinformation Company, 2007.

Foucault, M., Discipline and Punish: The Birth of the Prison. New York: Vintage, 1979.

Genesko, G., and S. Thompson, "Tense Theory: The Temporalities of Surveillance." In Theorizing Surveillance: The Panopticon and Beyond, ed. D. Lyon. Portland, OR: Willan Publishing, 2006.

Haggerty, K. D., "Tear Down the Walls: On Demolishing the Panopticon." In Theorizing Surveillance: The Panopticon and Beyond, ed. D. Lyon. Portland, OR: Willan, 2006.

Herbeck, D., "Raids Target Drug Dealing in Housing Projects." Buffalo News (February 26, 2004).

Heymann, Philip B., and Julliette N. Kayyem, *Protecting Liberty in an Age of Terror.* Cambridge, MA: MIT Press, 2005.

Hier, Sean P., and Josh Greenberg, *Surveillance: Power, Problems, and Politics.* Vancouver: UBC Press, 2009.

Lyon, David, ed. *Theorizing Surveillance: The Panopticon and Beyond.* Portland, OR: Willan Publishing, 2006.

Monahan, Torin, *Surveillance and Security: Technological Politics and Power in Everyday Life.* New York: Routledge, 2006.

Monahan, Torin, *Surveillance in the Time of Insecurity.* New Brunswick, NJ: Rutgers University Press, 2010.

Musheno, M. C., J. P. Levine, and D. J. Palumbo, "Television Surveillance and Crime Prevention: Evaluating an Attempt to Create Defensible Space in Public Housing." *Social Science Quarterly* 58, no. 4 (1978): 647–656.

Norris, C., "From Personal to Digital: CCTV, the Panopticon and the Technological Mediation of Suspicion and Social Control." In *Surveillance and Social Sorting: Privacy Risk and Automated Discrimination,* ed. D. Lyon. London: Routledge, 2002.

Pinpoint Productions, Inc., "Bugs, Bugging and Covert Listening Devices." 2005. http://www.tscmvideo.com/Articles%20and%20Reports/bugs-listening-device.html

Rao, S., "Executive Secrets." *Forbes* (October 4, 1999).

Rice-Oxley, Mark, "Big Brother in Britain: Does More Surveillance Work?" *Christian Science Monitor* (February 6, 2004). http://www.csmonitor.com/2004/0206/p07s02-woeu.htm

Stapleton, R., "Researching RFID's Surveillance Potential." *RFID Journal* (July 28, 2005). http://www.rfidjournal.com/article/articleview/1765/1/1/

UAV RoadMap Meeting, 2005. http://www.defenselink.mil

Webster, F., and K. Robins, *Information Technology: A Luddite Analysis.* Norwood, NJ: Ablex, 1986.

Zuboff, S., *In the Age of the Smart Machine: The Future of Work and Power.* New York: Basic Books, 1988.

T

TRANSPORTATION AND THE ENVIRONMENT

Robert William Collin

Transportation is a major contributor to air pollution, with motor vehicles accounting for a large share of nearly all the major pollutants found in the atmosphere. Trains, planes, trucks, and cars define the transportation system and have large environmental effects. As these effects become known and begin to accumulate in communities, many urban communities resist transportation enlargements such as roads.

The movement of people, goods, and materials requires large amounts of energy. Much of this energy is reliant on nonrenewable fuel reserves such as gas and oil. They also produce pollution that affects the land, air, and water. It is the issue of air pollution that creates some of the most intense controversy.

Bus and railway depots in urban areas can be sinks of polluted air. These sinks will increase as these facilities expand to meet transportation demands. Increased transportation demand is reflected in longer and bigger traffic jams and gridlock. These themselves increase the amount of emissions that spew into the surrounding air. Many urban communities are already overloaded with transportation modalities that tend to benefit those outside the city. The notorious electrified third rail of the New York City subway system poses a deadly hazard wherever it is exposed. That subway tends to run underground in wealthy areas and above ground in generally lower-income and diverse communities.

Many large cities east of the Mississippi have similar mass transit approaches. Mass transit has often left these communities more exposed to transportation hazards. Some

maintain that rich and powerful white communities get better-designed roads with higher safety margins than poor, African American and Hispanic communities. As these emissions have accumulated, and these communities become environmentally self-empowered, the resistance to enlargements in transportation infrastructure is vigorous. Local political battlegrounds may include land-use hearings, environmental impact assessments, and the courts. For example, Portland, Oregon, would like to add a fifth lane to the four-lane interstate highway to accommodate commuters from the outlying, predominantly white suburbs. They want to add a lane in a Portland community that is lower income and very diverse and that already has large amounts of air pollution. These issues have been debated in a series of community and city meetings, with the city trying to persuade the community that the land expansion is important. The neighborhoods strongly resist and do not think anything could mitigate environmental effects enough to reduce the area's 14 percent asthma rate.

Another example is in Seattle, Washington. After years of controversy and public ballots, Seattle is building a better mass transit system. Because there are significant environmental effects, the U.S. Department of Transportation had to perform an environmental impact assessment. Early plans replicated the U.S. East Coast pattern of delivering infrastructural improvement based on the wealth and race of the community. Because the environmental impact assessment did not adequately address environmental justice effects, they had to do it all over again and make significant changes in the transit plan. The litigation and result held up about $47 million in federal aid until the environmental assessment was performed to a satisfactory level.

The environmental effects of mass transit and private transportation are well known. Both transportation types are increasing, and communities are increasing their resistance because of the environmental effects. There have been attempts to handle aspects of this problem with federal legislation. Although the Intermodal Surface Transportation Efficiency Act of 1991 strongly reinforced the Clean Air Act requirements through its planning requirements and flexible funding provisions, technical uncertainties, conflicting goals, cost-effectiveness concerns, and long-established behavioral patterns make achievement of air quality standards a tremendous controversy. Techniques of estimating (and forecasting) emissions from transportation sources in specific urban areas are still controversial and generally inaccurate at the individual level. The number of monitoring stations and sites remains low, which often forces the citizens to monitor the air themselves. The lack of monitoring sites is a key issue for most U.S. environmental policy. Most industry self-reports its environmental effects, and many industries are not even required to get any kind of permit. The more monitoring sites the more potential liability the corporation faces. Communities and environmentalists do not trust government and industry when monitoring is not allowed or is insufficient. This greatly inflames any controversy but particularly air pollution controversies around transportation's environmental effects.

Transportation activity contributes to a range of environmental problems that affect air, land, and water—with associated effects on human health and quality of life.

Noise

Noise is probably the most resented form of environmental impact. Despite the money devoted to noise abatement, these measures are still limited in their effects. Numerous studies have been conducted from economic points of view, but their findings can be seen as somewhat controversial. Environmental effects of noise can affect nesting sites for birds, migration pathways and corridors, and soil stability. Noise can also decrease property values.

Sprawl and Cars

U.S. cities are characterized by a separation of work and home, connected mainly by cars and some mass transit systems in denser urban and older suburban areas. The desire for a single-family detached home away from work, and increasingly away from other trips like shopping and school, requires large amounts of land and therefore has greater environmental effects. Cars and trucks on the road today are some of the heaviest contributors to poor air quality and global warming. Illnesses such as cancer, childhood asthma, and respiratory diseases have become increasingly linked to emissions from transportation. This problem is furthered by poorly designed transportation systems that contribute to sprawl, causing freeways to become more congested and polluted. Despite improvements in technology, the average fuel economy of vehicles is less than it was in the 1980s, which also means they generate more pollution. The expansion in the production of hybrid vehicles and technological improvements in conventional vehicles could raise the fuel efficiency of new vehicles to 40 miles per gallon within a decade and 55 miles per gallon by 2020 according the Natural Resources Defense Council, an environmental organization.

Freeways' Tainted Air Harms Children's Lungs

Southern California contains some of the dirtiest air in the United States. There are enormous traffic problems, large polluting industries, and a rapidly increasing population. The smog can extend for hundreds of miles out in the Pacific Ocean, and hundreds of miles inland to the majestic Sierra Mountains. The public health risks extend to wherever the smog accumulates. The regional air quality control boards have been the subject of intense debates. At one time all 15 scientists in the Los Angeles air basin quit, resigned, or were terminated because of the failure to set enforceable and strong clean air standards. The issue of air pollution harm is therefore a very intense controversy.

University of Southern California (USC) researchers found in January 2007 that children living near busy highways have significant impairments in the development of

CONTEXT SENSITIVE SOLUTIONS

Context Sensitive Solutions (CSS) is a forward-thinking notion aimed at solving environmental pollution problems associated with transportation. It is a policy-making process. The approach has four core principles applying to transportation processes, outcomes, and decision making. They are:

1. Strive toward a shared stakeholder vision to provide a basis for decisions.
2. Demonstrate a comprehensive understanding of contexts.
3. Foster continuing communication and collaboration to achieve consensus.
4. Exercise flexibility and creativity to shape effective transportation solutions while preserving and enhancing community and natural environments.

The Center for Transportation and Environment at North Carolina State University and the Federal Highway Administration (FHWA), part of the U.S. Department of Transportation, recently joined forces to stimulate dialog about the environment and transportation. They are using this innovative method to facilitate discussion and arrive at a solution.

It is the latest and hottest approach to a solution that is generating cutting-edge workshops, conference sessions, and new courses at universities throughout the United States. At the 2010 Transportation Research Board Environment and Energy Research Conference, more than 400 revolutionary transportation, environmental, and planning professionals met to investigate plans, process applications and delivery, and data/information management in an effort to minimize transportation effects on natural habitats, ecosystem and environmental quality.

The FHWA publishes case studies of projects resulting from the CSS national dialog at http://www.contextsensitivesolutions.org/content/newsletter/mar-2010/. Additional information is available at http://itre.ncsu.edu/cte/EEConference/index.asp Center for Transportation and the environment.

—Debra Ann Schwartz

their lungs. These impairments, or tears and scars in the lung tissue, can lead to respiratory problems for the rest of their lives. The 13-year study of more than 3,600 children in 12 central and southern California communities found that the damage from living within 500 yards of a freeway is about the same as that from living in communities with the highest pollution levels. For communities in high-pollution areas and living near highways there is a huge increase in risk of respiratory illness. The greatest human damage is in the airways of the lung and is normally associated with the fine particulate matter emitted by automobiles. The research is part of an ongoing study of the effects of air pollution on children's respiratory health. Previous study findings show that smog can slow lung growth, and highway proximity can increase the risk of children getting asthma.

Groups of fourth-grade students began the study, average age 10, in 1993 and 1996. The USC research team collected extensive information about each child's home, socioeconomic status, and health. Once each year, the team visited the schools and measured the children's lungs. Results from the study in 2004 indicated that children in the communities with the highest average levels of pollution suffered the greatest long-term impairment of lung function. In the new study, children who lived within 500 yards of a freeway had a 3 percent deficit in the amount of air they could exhale and a 7 percent deficit in the rate at which it could be exhaled compared with children who lived at least 1,500 yards, or nearly a mile, from a freeway. The effect was statistically independent of the overall pollution in their community. The most severe impairment was in children living near freeways in the communities with the highest average pollution. According to the USC study, those children had an average 9 percent deficit in the amount of air they could expel from the lungs. Lung impairment was smaller among those who moved farther from the freeways.

Environmental Effects

Each major highway or other transportation project effects the environment in a variety of ways. The most immediate negative impact on the human environment is the destruction of existing homes and businesses. Longer-term effects include noise, air pollution, and potential loss of living quality. Wildlife and plants suffer from habitat destruction and various forms of pollution.

In addition, ecosystems suffer fragmentation; habitats and ecosystems that had worked together are divided. Migratory species may be separated into genetic islands, reducing future biodiversity and leading to local extinctions. Transportation projects may also necessitate the draining or contamination of wetlands, which are important for flood control and filtering and cleaning water. Current laws require that wetlands be reclaimed or created somewhere else. Critics claim these laws are poorly enforced and have many exemptions.

Conclusion

Transportation systems show little signs of abating in size and scale. Their environmental effects have serious public health consequences and implications for sustainability. The air emissions from these systems accumulate, and more communities are now knowledgeable about some of their effects. The environmental impact statements required by many of these projects are issues in their own right. Mass transit and low-impact transportation modalities (like bicycles) are not accommodated in the United States. The current lack of integrated environmental land-use planning in the United States also prevents the development of alternative modalities on the scale necessary to reduce environmental effects. The current healthy-community movement and policies do emphasize low-impact and healthy alternatives and the physical design necessary for people to engage in these activities safely, but all these are still theoretical.

HAWAII: PARADISE LOST?

Without public comment, transportation officials exempted the Hawaii Superferry from an environmental review required of projects that use federal government money and have significant environmental effects. This has generated enormous controversy among many stakeholder groups. In September 2007 the Kauai Surfers Association protested the first day of operation and successfully blocked the Superferry's physical progress.

The first ferry is a four-story, 900-passenger, 250-car catamaran built especially for Hawaii at a shipyard in Mobile, Alabama. The second is being built. The first Superferry is to make daily trips between Honolulu and the islands of Kauai and Maui with one-way fares of $42 per person and $55 per vehicle. The second ferry would add service to the Big Island. Currently, the only regular interisland travel is by air, with one-way fares ranging from $79 to more than $100.

Environmentalists resist the Superferry because of traffic congestion, collisions with humpback whales, the spread of invasive species, and strains on limited harbor space. A recent opinion by the state Environmental Council said the Department of Transportation erred when it granted the exemption for an environmental impact review. Superferry officials argue they have exceeded environmental requirements.

Two lawsuits calling for environmental evaluations, one before the Hawaii Supreme Court and another in Maui Circuit Court, are also pending. At issue is whether the Superferry would be exempt. The law states in relevant part as follows:

Section (b) of 11–200–8 . . . no exemption shall apply "when the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant . . . may be significant in a particularly sensitive environment."

The DOT previously had found that successive actions relating to a proposed intra-island ferry (on Oahu) in the early 1980s did require preparation of an environmental impact statement, and thus there was a distinct inconsistency in their application of an exemption in the case of the Superferry. Both the cumulative and secondary effects evidenced through numerous resolutions of county officials in Maui, as well as the established sensitivity of the environment in which the Superferry will operate (conservation district, shoreline, endangered species, etc.) meet the explicit terms of §11–200–8(b).

The ultimate concern here lies in the avoidance of systematic environmental review. No amount of after-the-fact study or mitigation undertaken by the Superferry reverses the failure to abide by the intent of the law that there should be public disclosure and consideration of serious environmental concerns as part of a process that is concluded prior to approval of a major project. One of the three lawsuits filed, specifically challenging the exemption, is under appeal to the Hawaii Supreme Court.

Source: Hawaii Environmental Council, http://hawaii.gov/health/oeqc/envcouncil.html

Controversies about roadway development and expansion will continue as environmental controversies.

See also **Acid Rain; Aging Infrastructure; Automobile Energy Efficiencies; Climate Change; Environmental Impact Statements; Sprawl**

Further Reading

Environmental Stewardship and Transportation Infrastructure Project Reviews, Executive Order 13274. www.dot.gov/execorder/13274/eo13274/index.htm

Forman, Richard T. T., *Road Ecology: Science and Solutions.* Washington, DC: Island Press, 2002.

Kutz, Myer, ed., *Environmentally Conscious Transportation.* Hoboken, NJ: Wiley, 2008.

National Research Council Transportation Research Board, *Surface Transportation Environmental Research: A Long-Term Strategy.* Washington, DC: National Academies Press, 2002.

Pavel, Paloma, ed., *Breakthrough Communities: Sustainability and Justice in the Next American Metropolis.* Cambridge, MA: MIT Press, 2009.

Rietveld, Piet, and Roger R. Stough, *Barriers to Sustainable Transport: Institutions, Regulation and Sustainability.* New York: Spon Press, 2005.

Root, Amanda, *Delivering Sustainable Transport: A Social Science Perspective.* Boston: Pergamon, 2003.

Schäfer, Andreas, et al., *Transportation in a Climate-Constrained World.* Cambridge, MA: MIT Press, 2009.

Sherwood, Bryan, David Frederick Cutler, and John Andrew Burton, *Wildlife and Roads: The Ecological Impact.* Singapore: Imperial College Press, 2002.

Sightline Institute, Sprawl and Transportation: Research and Publications, www.sightline.org/research/sprawl/res_pubs

V

VACCINES

Karl F. Francis

Vaccination against disease has saved millions of lives, yet controversy about their efficacy continues. Researchers have claimed evidence of a link between vaccines and autism, fueled by studies of the effects of mercury poisoning. They also have speculated that increases in attention deficit/hyperactivity disorder may be associated with the high doses of mercury in vaccines for controlling influenza, for example. That is why a citizens movement developed to challenge the safety of vaccines in the 1990s.

Many people in the United States and in other countries take vaccination for granted. When vaccines work, no apparent misery is endured by the patient. Nothing noticeable happens—except that the person has no symptoms of illness of any kind. No polio. No smallpox. No measles. No scarlet fever. No plague. Millions of people have died from smallpox, diphtheria, mumps, and tetanus, for example. We think of vaccinating ourselves as a sign of progress, a triumph over epidemic diseases.

Yet the real or hypothetical side effects of viruses remain a medical contention. Some researchers and critics shake a finger at organisms that have adapted to antibiotics and rendered them ineffective and viruses that have evolved beyond current treatments (e.g., HIV infection). They blame vaccines for causing the disease strains to mutate and persist.

It has been suggested that the problem with human disease epidemics is related to the way we have organized our society economically and politically. The theory is that if society gives priority to accumulating land, resources, and wealth over public health

concerns, this in turn creates problems for those who want to control pandemics. Even the political agendas of some governments play a role in the distribution of vaccines, as was illustrated in recent years in the controversy surrounding the human papillomavirus vaccine.

State of the Research

Scientists are beginning to think that vaccines would work better in protecting children from flu if they included both strains of influenza B instead of just one. Further, researchers are reporting that a novel vaccine strategy using viruslike particles (VLPs) could provide stronger and longer-lasting influenza vaccines with a significantly shorter development and production time than current ones, allowing public health authorities to react more quickly in the event of a potential pandemic.

The quest for a universal flu vaccine continues, but researchers at the Mt. Sinai School of Medicine in May 2010 reported new findings suggesting that the day is near when there will not be a need for seasonal flu shots. There will be one vaccine, and it will guard against all kinds of influenza. Current flu shots are strain-specific, making it necessary to adjust the vaccine each year. A patent application for the universal flu vaccine has been filed. (The new findings were reported in the inaugural issue of *mBio,* the first online, open-access journal published by the American Society for Microbiology.)

Germs and Toxins

There are two central concerns regarding vaccines. First, there is the problem of suspected contaminants or toxins that accompany the vaccines, and the safety of the vaccines themselves, as vaccines are often made from weakened, inactive, or "killed" viruses.

Second, there are concerns about the efficacy of vaccines: Do they actually threaten the appearance of germs? There is worry about emerging "superbacteria" and rapidly mutating viruses. In the wake of public anxieties regarding ongoing and emergent diseases (e.g., HIV, SARS, resistant strains of TB, and now avian, or bird, flu), one wonders if vaccination programs and public health systems in the United States and abroad are sufficient to meet a real pandemic—a disease moving around the globe affecting millions, maybe billions, of people and the animals they depend on. So it is interesting that some people see vaccines themselves as an emerging problem, whereas others see vaccines as a necessary solution to epidemic diseases. The concern remains that the vaccines, and treatment systems in general, may be inadequate given the natural evolution of microorganisms.

The two problems may be interrelated: those who are worried about government-enforced vaccination programs have some grounds for concern because governments themselves are caught up in contradictory demands from citizens in general on one hand and business concerns on the other.

Background

Historically speaking, epidemic diseases are not inevitable or natural events, such as earthquakes or hurricanes. The notion that collectively humans are in part responsible for what literally plagues them has been addressed in popular nonfiction. Jared Diamond, author of a popular book on the history of civilization, notes the central role disease plays in our history and how our societies have helped our diseases. For instance, there is his discussion of our relationship with domestic animals, including pets. Infectious diseases picked up from pets and other animals are usually small nuisances. But some have developed into major killers—smallpox, TB, malaria, the plague, cholera, and measles, to name just a few.

Many of the diseases that have plagued us began early in the agricultural revolution thousands of years ago. Pests such as mosquitoes—which transmit malaria, anthrax, and foot-and-mouth disease—are among the important examples. Such pests are attracted by us and large groups of animals in close captivity.

The maintenance of a stable society over time, involving hundreds or thousands of people, has often required people to own property, tools, and animals and later other people. So-called crowd diseases that would not have gotten a foothold in hunter-gatherer societies flourished in the increasingly large and dense populations of humans and their domesticated animals. Life spans actually decreased as humans transitioned to agricultural communities, where they were subjected to such new maladies as measles, smallpox, TB from cattle, flu and pertussis from pigs, as well as plague and cholera.

The history of vaccines is indicated in part by the very term. *Vaccine* is derived from *vaccinus,* a Latin word meaning "of or from cows." The English naturalist Edward Jenner, hearing that milkmaids working with cows reportedly were less likely to contract smallpox, eventually developed a theory that exposure to the less virulent cowpox conferred some type of resistance to the often lethal human disease. He used variolation, a procedure whereby some pus or lymph from a pox lesion was introduced into a cut made by a lancet, quill, or other sharp object. He inoculated first a child and then others, including his family, with viral particles of cowpox. His theories may have been flawed, but it is interesting that although cowpox and later smallpox inoculations using this method were effective, there were often terrible side effects similar to the disease itself, and occasionally deaths occurred. It is also noteworthy that there was no informed consent. Seldom were people told what could happen or what the risks were. When an epidemic was threatening Boston, Reverend Cotton Mather was eager to introduce variolation to the colonies. This was met with considerable resistance, and those gentlemen heads of households who were persuaded to try the procedure tended to use it on the slaves, women, and children of the household first. It was often the case that women, children, slaves, and servants were the original test subjects. Perhaps this was one historic origin of the controversies over vaccine safety and the distrust of manufacturers and eventually government health programs in the United States.

Case Studies and Lawsuits

The history of vaccines has many dark pages—for example, the U.S. government's rush to inoculate the U.S. population against swine flu in the 1980s and the famous Cutter debacle that introduced a toxic vaccine responsible for thousands of lost lives due to an improperly prepared polio vaccine. (The latter incident was, not surprisingly, responsible for increasing public suspicion of vaccines.)

Although, in the wake of the swine flu vaccine program, the swine flu of the 1980s never became a pandemic, reports began to emerge in late November 1976 of a paralyzing neurological illness. This condition, called Guillain-Barré syndrome, was connected to an immune response to egg proteins in the swine flu vaccine. According to historical accounts, federal courts had 4,000 injury claims. It is not known how many injuries were due to vaccination, but the government had to pay out around $100 million.

Given the history of vaccines, it may not be surprising that there have been responses such as the vaccine safety movement in the United States. Arthur Allen, a self-described vaccine advocate, reports the accidents, debacles, and incompetencies that have haunted the history of vaccination. The swine flu incident during the presidency of Gerald Ford came at a time not only of questioning and distrust of the government—in the wake of Vietnam protests and the Watergate scandal, among other important events—but also of a more general distrust of science. In his book, Allen describes the forming of a movement of citizens resisting vaccination, especially compulsory vaccination. In particular, there was resistance to the diphtheria/tetanus/pertussis (DTP) vaccination given in a series of shots to infants. The vaccine does have side effects, especially stemming from the manufacture of the pertussis, or "whooping cough," vaccine. Side effects have been mild to severe in some infants. The release of the television documentary *DPT: Vaccine Roulette* in 1982 provoked a grassroots movement of opponents to compulsory vaccinations.

In a report covering a winning lawsuit against a vaccine manufacturer, a spokesperson for the Centers for Disease Control (CDC) had to publicly attempt to stem fears that the vaccine was related to (or a cause of) autism. (The evidence remains far less conclusive than supporters of the vaccination theory would like it to be.) Sociologist Barry Glassner criticizes the American media and other organizations for helping to create what he calls "metaphoric illness"—maladies that people can focus on instead of facing larger, more pressing issues. For instance, we have given much attention to Gulf War syndrome, rather than looking at the reasons for the Gulf War and its consequences. A focus on DTP (also referred to as DPT) deflects the public's attention from larger concerns, perhaps about the credibility of government itself. The DTP vaccine does have some side effects, however, and a newer version is now being used. Glassner points to a similar scare in Japan, and whooping cough, once responsible for the deaths of thousands of infants, may be making a comeback in Japan and the United States. As

noted previously, there is more than metaphoric illness going on, whatever fears safety-movement opportunists may be amplifying. The history of vaccination reveals that there are relevant concerns, issues, and problems on both sides of the vaccine debate.

Improperly prepared or contaminated vaccines have resulted in sickness and death. Many vaccines comprise weakened or neutralized germs. One method of making them is to grow microbes in chicken eggs. People allergic to egg products are warned about using vaccines before their annual flu shots. Concerns about some vaccines causing disorders such autism, as noted, have led to an increased resistance.

Yet anyone who reads firsthand accounts of smallpox epidemics, the current ravages of HIV, or the limited attacks of bird flu will probably want to receive the latest vaccination, even if there are specific risk factors. Other issues have been raised, however, about the overall impact on society of vaccine use. For instance, there is the recent controversy about inoculating under-age women against the strains of human papillomavirus that are linked to cervical cancer. This cancer causes the deaths of thousands of women each year in the United States and the United Kingdom. Because the virus can be sexually transmitted, some critics believe that vaccinating young people may be sending the message that it is acceptable to have sex while legally a minor or to have sex outside of marriage. It remains to be seen whether the use of such vaccines will contribute to an increase in sexual activity in any age group. Whatever our thoughts on this debate, it is easy to see that vaccination involves ethical as well as medical concerns.

Why Vaccinate?

The point of vaccination programs is to prevent sickness and death. What various debates on safety and toxicity overlook (or even obscure) is the social arrangements that often promote epidemics and pandemics. For example, the concern over avian flu has probably spurred historical research into past pandemics and our collective reactions. Further, researchers want to know to what extent human action contributes to pandemics. Would we have had the great flu pandemic that followed the World War I (1914–1918) if we had not had the war to begin with? There are good reasons to think that social and economic organization are causative factors in pandemics and our inability to overcome them. A parallel can be found in treatment responses. Antibiotics were once thought to be a road to the ultimate triumph over bacterial infections. Yet the way they are produced and distributed, combined with the evolution of bacteria, have produced bacteria with resistance to these drugs. In effect, the medical and economic organization of treatment has helped to produce "superbugs" that are far more lethal than their genetic ancestors.

Many people are worried that the influenza strain H5N1, or "bird flu," will become a pandemic. So far, this flu has been largely contained, although whole populations of pigs and chickens have been eliminated in the effort to contain it. One would think that because treatment for this flu is limited in supply and because it is so potentially lethal, those countries that have outbreaks would do everything possible to contain the disease.

The flu may not appear as such initially, and the countries involved may have insufficient supplies and treatment facilities.

These factors, combined with the increasing demand for chicken and pork, allow for increased exposure between wild fowl and domestic chickens and ducks on one hand (a viral reservoir) and agricultural workers and farm animals on the other. This, in turn, creates the conditions for new strains to develop, including strains that can spread from human to human. If this happens and a pandemic occurs, it will no longer be a "bird flu" except in origin. It will then be a human influenza that can mutate further into something similar to the flu that killed millions worldwide after 1918.

Social influences are also reflected in the fact that drug companies dislike flu vaccines because they are hard to produce, are seasonal, and are subject to variable demand. The production process has changed little over the last half century (since Francis and Salk), and although the newer, safer cell-culture technology would eliminate the contamination risk associated with using fertile chicken eggs, drug companies have not upgraded to this process.

Although numerous observers have pointed to the economic problems associated with pandemics—some blaming "corporate capitalism," others more general economic problems—Tamiflu, or oseltamivir, the one effective treatment for avian flu, is in short supply in the United States. Only two corporations in the United States were making flu vaccine in early 2004, in comparison with the 37 companies making vaccines in 1976.

The 1968 "mild" influenza pandemic killed approximately 34,000 people in the United States. An HN1 (bird flu) pandemic today would very likely kill many more. Sooner or later, an influenza pandemic will happen, but the timing is open to speculation. Given that, why would supposedly advanced societies not prepare for a pandemic with a more powerful virus?

Even a relatively mild pandemic would pressure the United States health care system to the point of collapse. Far fewer hospital beds are available per capita today than in 1968. Shortages of key items, such as mechanical respirators and stores of antibiotics for secondary infections, would quickly develop. Cutting costs is usually a way to save money and bolster profits for investors, or a response to decreased funding from state and federal sources. Responses to cost-cutting efficiency occur on the level of individual practitioners and group practice as well, in great part because of a managed care system that supplies reimbursements and referrals. (The lymphocytic choriomeningitis virus in a pregnant woman, for example, can cause hydrocephalus in her infant. Very little is known about the prevalence of this virus, but running diagnostics for it can raise a doctor's "cost profile" and cause his or her professional ranking as determined by insurance organizations to drop.)

Philosophical Perspective

One other issue about vaccines is philosophical, involving our understanding of the nature of disease and our attitudes toward it. The history of vaccination, along with

the history of responses to pathogenic organisms that led to the development and use of antibiotics, involves the presupposition that disease is bad and that health involves the avoidance or prevention of disease. As we learn more about the immune system, the socially constructed character of such a conclusion is called into question. Although no one is going to argue that smallpox is a good thing, the "kill the enemy" metaphor in response to pathogens of all types and sorts rests on very weak foundations. A much more effective and useful understanding comes out of viewing the immune system as one would a system of muscles; properly built up and maintained, the immune system can handle the environmental pathogens that people encounter unknowingly every day. Vaccines then can have a role in building up immunological "strength" as long as they do not overstress the system and cause it to break down.

Vaccination for all diseases and reasons, however, reflects economic and social reasoning rather than a medical or scientific indication. A crucial example of this problem is the use of a vaccination for the varicella zoster virus, or chickenpox. Very few children—at least with healthy immune systems—who contract chickenpox have symptoms serious enough to require hospitalization as long as the disease is contracted early in childhood. If exposure to chickenpox is deferred to the late teens or early twenties, the chances of serious infection, hospitalization, or even death among patients skyrockets. The disease is endemic worldwide; thought to be one of the oldest human diseases, it recurs in older people as the painful, though again not usually deadly, condition called shingles (herpes zoster). Vaccination for chickenpox has been promoted for two reasons: (1) to protect our children from disease (the philosophical rationale) and (2) because of the financial implications of parents or caregivers having to take several days off from work so as to care for their sick children. Nowhere in this equation is the danger acknowledged of a vaccination that has an indeterminate effectiveness over time; perhaps we are merely extending the inevitable infection until a later point in adolescence or young adulthood when the benign childhood disease becomes serious or lethal. (Although losing a couple of days of work is irritating, most parents of young children would likely prefer this to the alternative of having a very sick—or dead—teenager.) The public pressure for the new vaccine, however, particularly when marketing focuses on the philosophical rationale of protecting children from disease, is enormous, and the vaccine manufacturers, naturally, have a vested economic interest in promoting such a rationale.

Conclusion

Given the history of vaccines—the experimentation on vulnerable people without informed consent, the problems with their manufacture and distribution, and the rapid evolution of new strains that our economic activity may be assisting—skepticism about vaccination will continue, especially in times where cost cutting and poor production

override concerns for safety or when corporate economics, rather than public health, drive the research and manufacturing of new vaccines.

Skepticism may also continue in the social response to metaphoric illnesses. Metaphoric illness is a way of dealing with social problems that people are unable or unwilling to face head on, perhaps because of the apocalyptic visions of superbugs that no vaccine or health policy can address. Vaccines involve governments making policy about public health and how to intervene directly in the lives—and bodies—of individuals. The intervention of vaccination occurs across a lifetime, involving knowledge and expertise that most people do not have; that is, they do not understand the history, production, and distribution of vaccines, nor do they have medical professional expertise to administer them. Vaccination encompasses a large system of health care, which has become an industry run by remote corporations and technicians with esoteric knowledge. Vaccination is an intervention in the patient's body by this system; it symbolizes a host of interventions beyond the control and understanding of most people. Failure to address the metaphoric dimensions of anxieties about vaccines, fueled by the inevitable side effects and mistakes of any widespread medical undertaking, fosters a public anxiety that may have little foundation in medical science but is nonetheless influential.

See also **Cancer; Epidemics and Pandemics; Influenza**

Further Reading

Allen, Arthur, *Vaccine: The Controversial Story of Medicine's Greatest Lifesaver.* New York: Norton, 2007.

Barry, John M., *The Great Influenza: The Story of the Deadliest Pandemic in History.* New York: Penguin Books, 2004.

Colgrove, James, *State of Immunity: The Politics of Vaccination in Twentieth-Century America.* Berkeley: University of California Press, 2006.

Glassner, Barry, *The Culture of Fear: Why Americans Are Afraid of the Wrong Things.* New York: Basic Books, 1999

Levy, Elinor, and Mark Fischetti, *The New Killer Diseases: How the Alarming Evolution of Germs Threatens Us All.* New York: Three Rivers Press, 2004.

Maugh, Thomas H., and Andrew Zajek, "'Vaccines Court' Rejects Mercury-Autism Link in Three Cases." *Los Angeles Times* (March 13, 2010). http://articles.latimes.com/2010/mar/13/science/la-sci-autism13–2010mar13

Peters, C. J., and Mark Olshaker, *Virus Hunter: Thirty Years of Battling Hot Viruses around the World.* New York: Anchor Books, 1997.

Pringle, Evelyn, Autism, ADD, ADHD—Vaccine Related. Independent Media TV. June 27, 2007. http://www.autism99.org/articles/Autism_ADD_ADHD__Vaccine_Related.htm

Steel, John, et al., "An Influenza Virus Vaccine Based on the Conserved Hemagglutinin Stalk Domain." *mBio* 1 (May 18, 2010). http://mbio.asm.org/content/1/1/e00018-10.full

VOTING TECHNOLOGIES

Ruth Ann Strickland

Controversy over voting technologies in U.S. politics came about in the 2000 presidential election. The inability to obtain a reliable vote count in Florida in the close presidential contest between Al Gore and George W. Bush triggered electoral reform, with a particular focus on election voting machinery. The 2000 presidential election illustrated to all the vulnerability of U.S. voting systems and how voting machines could play havoc with voter intent and electoral results. States today use five different voting technologies, and some jurisdictions employ more than one type. Because of heightened awareness and increased media attention to voting problems, choosing among these various voting technologies has become problematic and controversial.

A Range of Choices

State governments, being primarily responsible for election administration, have used a variety of balloting procedures and voting hardware, including oral voting, paper ballots, mechanical lever machines, punch-card systems, mark-sense or optical scanning ballots, and electronic systems. One of the least complex systems—the hand-counted ballot—was the first voting mechanism used. Hand-counted ballots allow voters to mark boxes next to the preferred candidates' names. Even more simplistic, in the late 1700s and early 1800s, southern male voters would go before a judge and, when their names were called, would publicly state which candidates they supported. Because of voter coercion and intimidation, the secret paper ballot was introduced and became the primary voting device (Alvarez and Hall 2008, 15). Given the time-intensive nature of hand-counting paper ballots, the use of paper ballots has greatly declined. Paper ballots are used primarily in less populous counties; nationwide, the number of voters using them has been reduced from 2 million in the year 2000 to 300,000 (or 0.2 percent) in 2006 (Percy 2009, 2).

Mechanical Lever Systems

The mechanical lever machine, invented in 1892, was adopted by states to obtain quicker and more reliable election results. In using this machine, voters indicate their voting decisions by pulling a lever near a candidate's name. The levers, connected to counting wheels, maintain a running tally of the votes cast for each candidate. Election officials obtain vote totals by reading the number of votes recorded by the counting device. Devised to alleviate problems associated with paper ballots, mechanical lever machines were also vulnerable to fraud and corruption. For example, election administrators with access to the storage devices could manipulate stored vote totals at any time during the election cycle. Mechanical lever machines make it difficult for the disabled to vote because, being large machines (comparable in size to a refrigerator), they can be hard to access by those with physical handicaps or those who are visually impaired. Also, lever devices are not

easily adapted to provide ballots in multiple languages (Alvarez and Hall 2008, 16). By 1998, only about 15 percent of counties still used mechanical lever machines, affecting about 18 percent of the voting population. In 2006, mechanical voting systems were used in just 62 counties and covered less than 7 percent of the nation's voting-age population (Knack and Kropf 2002).

Punch-Card Systems

In the 1960s, punch-card voting machines emerged. They were cheaper and allowed election officials to purchase more machines to accommodate larger precincts. Punch-card systems employ two types of ballots. The simpler ballot design—Datavote—allows voters to punch a hole on a card beside the candidate's name using a punching tool with a metal shaft. The second type—Votomatic—provides the candidate's name in a booklet attached to a mechanical holder under which voters insert a prescored punch card. Each hole on the punch card has a corresponding number. Voters punch a hole corresponding to the number of the candidate they wish to support. With a stylus or other device, voters punch holes at the appropriate spots on the card, forcing out the marked areas (also known as "chads"). In 1998 about 20 percent of counties, comprising 35 percent of the population, used punch-card technology. Following the 2000 election, in which this technology became an issue, the use of punch cards rapidly declined, and by 2006 only 13 counties used punch-card systems, affecting less than 0.5 percent of voters (Saltman 2006, 7–13).

In Florida, during the 2000 presidential election, use of punch-card voting systems led to undervoting (failure to vote in a race that the voter was eligible to vote in) and overvoting (or voting more times than permitted). Votomatic systems in particular were subject to alignment failures and malicious tampering with instructions. Also, voters with visual impairments found it hard to see the ballot with the punch card, and those with physical impairments found it difficult to use the stylus to mark their ballots (Alvarez and Hall 2008, 18). In 2000, punch-card voting systems, compared to optical scan, paper ballot, and machine lever ballots, had the highest rejection rate in Florida. In a study of rejected ballots in that state, approximately 4 percent of punch-card ballots were rejected. In such a situation, when different voting systems are used, voters in one jurisdiction do not have the same chance that their votes will be counted as do voters who live in another jurisdiction—effectively denying some voters the right to vote (Percy 2009, 7). An additional limitation to punch-card voting is that this type of equipment may influence the racial gap in proportion to voided ballots. African Americans cast invalid ballots more frequently than whites. Voting records from Louisiana and South Carolina, the only states to report voter turnout by race, indicate that punch-card voting systems produce a wider gap in frequency of voided ballots between blacks and whites than do mechanical lever and electronic machines. These findings have given jurisdictions further incentive to upgrade their voting systems (Tomz and Houweiling 2003, 58–60; Buchler et al. 2004, 523).

Optical Scan Ballots

Marksense, or optical scan, ballots were introduced in the 1980s for computing election results, but the technology had been around for decades, as these machines were frequently used to grade standardized examinations. Similar to paper ballots, marksense ballots require voters to use a black marker to fill in a circle or box beside the names of preferred candidates. A scanning machine reads the dark marks on ballots and records the results. Although similar to a paper ballot, a marksense ballot is larger, allowing jurisdictions to provide information about candidates directly on the ballot rather than in a separate booklet. Two types of optical scanners in use are precinct-count optical scanning and central-count marksense equipment. Precinct-count optical scanning equipment allows voters to feed ballots directly into a reader, which can be programmed to return the ballot to the voter if the voter has mistakenly selected more than one candidate for the same office (Saltman 2006, 13). With central-count marksense equipment, on the other hand, voters drop ballots into a box, and election officials then feed the ballots into the counting machine. With this system, voters do not have an opportunity to correct faulty ballots. Increasing in popularity in the 1990s, the technology reached peak use in 2006, with 56 percent of all counties and almost 50 percent of the nation's voting-age population embracing optical scan equipment (Utter and Strickland 2008, 46).

Like punch-card technology, optical scan ballots require voters to mark their choices on paper, and the paper is then scanned by an electronic device. Likewise, optical scanning voting systems face similar problems to those of punch-card voting. Voters are prone to undervote or overvote and may make mistakes with write-in candidates or find some other way to deface or spoil the ballot. Precinct-count machines can reduce these errors. Still, disabled voters may find it difficult to use optical scan technology if they have a handicap that makes using a pen or marking device unworkable. Voting with assistance raises concerns about coercion and fraud, because those who provide the assistance could potentially record preferences that do not match those of the actual voter. Because optical scan voting systems require that information specific to each precinct be printed on ballots to reflect all the possible choices voters would face and that the paper used be of high quality, it is hard to implement these systems in large, complex election jurisdictions. The increased complexity of printing these types of ballots across a large jurisdiction—which may require multiple formats and possibly multiple languages—raises the costs of using this technology. Because the technology is paper-based, some argue that this establishes a voter-verified paper trail and a means for recounting ballots for accuracy. However, the 2000 election demonstrated that having a marked ballot and interpreting voter intent are two different things. Voters may mark their ballots in ways that make their intent indiscernible, leading to delay in obtaining election results or no change in the recount of the vote (Alvarez and Hall 2008, 22).

Electronic Systems

Based on the microprocessor technology that emerged in the 1970s, electronic voting machines or direct recording electronic (DRE) devices allow voters to use touch-screen technology to vote. A ballot, displayed on an electronic device, displays vote choices. Then voters push buttons or touch spots on the surface of a computer screen to indicate their vote choices. Voters may write in a candidate, using the keyboard to type the name. Some DRE machines count votes as soon as they are cast, while others record ballot images that compute vote totals when the polling stations close (Jones 2001). Voter preferences are stored electronically, and if the machine is programmed correctly, voters have no chance to overvote. DRE systems can be programmed to display ballots in any language to accommodate minority voters for whom English is a second language. These systems can be designed to aid the disabled, granting improved access. Compared to punch-card and lever machines, DRE systems can reduce voter rolloff—the failure to indicate a vote choice for all offices and measures on a ballot—by up to 26 percent in judicial elections (Fischer 2001). In 2006, about 38.4 percent of voters (or 65.9 million voters) used DRE voting systems (Percy 2009, 8).

This type of technology has also generated its share of controversy. After the 2000 elections, manufacturers of DRE machines lobbied states to purchase their technology as a panacea for all their voting system problems. In conjunction with this, Congress passed the Help America Vote Act (HAVA), which gave states incentives to replace their punch-card and lever machines. In their rush to get the HAVA monies, many state governments did not engage in comprehensive evaluations of the DRE machines. If they had done so, they would have found various security and reliability problems. Critics argue that under DRE voting technology, only a very small number of individuals can inspect and verify the machines' correct operation. Thus the integrity of a jurisdiction's voting system rests with very few people. Some believe that the machines are subject to manipulation and error and that even the machines that print out a complete record of the votes cast can be trusted only to the extent that the software is transcribed in a valid fashion (Percy 2009, 8–9). The Caltech/MIT Voting Technology Project expresses numerous concerns including the following: (1) no longer being able to "see" the vote count (no auditable trail), (2) the inability of numerous people to examine the various stages of the voting process, (3) the vesting of authority in electronic machine manufacturers with little federal oversight on the technology, (4) companies that produce the machines can program them to record and count votes according to their partisan political interests, and (5) failures in the DRE machines that have led to lost votes and altered election outcomes (Alvarez and Hall 2008, 35).

Conclusion

As of 2009, about 89 percent of localities across the United States used either optical scan paper ballots or an electronic system. Less than 7 percent of election jurisdictions used lever machines and paper ballots. With almost $1.26 billion spent through HAVA

to replace other voting technologies such as punch-card, mechanical lever, and paper ballots (Wolf 2008), clearly a possibly irreversible shift has occurred in the use of voting technologies in the United States.

See also **Election Campaign Finance (vol. 1)**

Further Reading

Alvarez, R. Michael, and Thad E. Hall, *Electronic Elections: The Perils and Promises of Digital Democracy.* Princeton, NJ: Princeton University Press, 2008.

Buchler, Justin, Matthew Jarvis, and John E. McNutty, "Punch Card Technology and the Racial Gap in Residual Votes." *Perspectives on Politics* 2 (September 2004): 517–524.

Fischer, Eric A., "RL 30733: Voting Technology in the United States: Overview and Issues for Congress." Congressional Research Service Report for Congress. March 21, 2001. usa.usembassy.de/etexts/gov/voting.pdf

Jones, Douglas W., "Evaluating Voting Technology." Testimony before the United States Civil Rights Commission, Tallahassee, FL, January 11, 2001. http://www.cs.uiowa.edu/~jones/voting/uscrc.html

Knack, Stephen, and Martha Kropf, "Who Uses Inferior Voting Technology?" *PS: Political Science and Politics* 35 (September 2002): 541–548.

Percy, Herma, *Will Your Vote Count? Fixing America's Broken Electoral System.* Westport, CT: Praeger, 2009.

Saltman, Roy G., *The History and Politics of Voting Technology: In Quest of Integrity and Public Confidence.* New York: Palgrave Macmillan, 2006.

Tomz, Michael, and Robert P. Houweiling, "How Does Voting Equipment Affect the Racial Gap in Voided Ballots?" *American Journal of Political Science* 47 (January 2003): 46–60.

Utter, Glenn H., and Ruth Ann Strickland, *Campaign and Election Reform,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2008.

Wolf, Richard, "Voting Equipment Changes Could Get Messy on November 4." *USA Today* (October 29, 2008). http://www.usatoday.com/news/politics/election2008/2008–10–28-voting equipment_N.htm

W

WASTE MANAGEMENT

Alexandre Pólvora

Waste management has been a part of our human-built worlds from the time of the earliest cultures and civilizations. Only in the late 19th century, however, owing to an increase in human population and therefore the amount of waste generated, did widespread awareness about issues such as recycling and landfills emerge in Western political and economic arenas. When New York City produced so much waste that nearby Staten Island could no longer accept trash from the city—there was no place to put it—the world watched in amazement as garbage from U.S. cities began to be shipped overseas and out of the country for disposal. This awareness became a central concern of everyday life beginning in the mid-20th century.

What Is Waste?

The word *waste* refers to junk, scrap, trash, debris, garbage, rubbish, and so on. For the most part, it is understood as those materials resulting from or rejected by a particular production activity. Waste is also a more or less inclusive concept for such matters as energy losses, pollution, and bodily fluids. Waste is what we no longer need or want, as individuals or groups, and what emerges from sorting activities where parts of our worlds are discarded and others are not.

Waste has always existed and will continue to exist. The exact definition of waste is not necessarily always the same, even if we share common notions of waste in dealing with it daily, or even if most institutions and experts agree on how to define it functionally.

For example, we may find dissimilar notions of waste just by observing how substances currently judged as waste are the target of contrasting views, by different people or social groups, in distinct places or even in the same place. Present debates are frequently localized or regionalized, and waste has distinct configurations in southeast urban Brazil, northern rural India, and San Francisco Bay, for example.

Furthermore, we can also find dissimilar notions of waste by looking backward through archeological records, which show us how the earliest human settlements began to separate their residues and assume a need to control some of them. In doing so, we can see how these records distinguish between the notions regarding waste of the first human settlements and those of previous human groups mainly engaged in hunting and gathering activities.

Hunters and gatherers did not stay put long enough to deal with remains of slow dissolution. Waste should be seen constantly as a dynamic notion, socially constructed and without the same meanings shared by everybody, everywhere, across time, space, and culture.

Classifications of Waste

Waste can be classified along a spectrum from extremely hazardous to potentially nonhazardous. In addition, based on its type, waste can occur as a gas, liquid, or solid. Based on origin, it may be commercial, household, industrial, mining, medical, nuclear, construction, or demolition waste. Based on their physical nature, waste streams can be organic or inorganic. Some putrefy, some do not. Based on possible outcomes, waste can be categorized as possibly reusable, returnable, recyclable, disposable, or degradable.

These categories distinguish how dangerous, expensive, or complicated each type is to eliminate. Almost all of our waste is framed as a problem in today's terms because of the quantity our society generates. If our society practiced a lifestyle that did not waste anything, or generated little waste and of the kind not harmful to the environment, it

ORGANIC BREAKDOWN

The Waste Management Corporation recently determined that the best way to manage waste today is to invest in increasing the rate at which biodegradable waste composts or decomposes. This waste hauler collects nearly 66 million tons of garbage every year. The company has put its money into a small firm with a means to create conditions in which the kinds of bugs that break down organic waste material thrive.

In January 2010, Waste Management announced a partnership with Harvest Power, a venture-capitalized company with a process to break down trash fast and turn it into natural gas, electricity, or nontoxic compost rich in soil nutrients that make plants grow well. The output from that digestion process is the same as what one gets from a cow: natural gas and good fertilizer.

would not be considered a problem. Decomposition would turn the problem into an asset just based on chemistry alone.

Our main way of dealing with waste is to assemble technical strategies. Those strategies become the core of waste management. Each grouping under a strategy corresponds to a material and symbolic technical world, based on large-scale processes with linked stages such as the identification, removal, control, processing, packaging, transportation, marketing, and disposal of wastes.

Waste is viewed in hierarchies, often ordered from the most to the least favored kind of waste to manage. For example, waste that does not contaminate water, land, or air would carry most-favored status for landfills. Waste that is toxic would carry least-favored status for incineration, for example, because burning the residue would contaminate the air. The sustainability mantra of "reduce, reuse, and recycle" applies. Depending on types of waste and intentions, strategies such as prevention, minimization, reduction, reutilization, retrieval by recycling or composting, energy recovery by incineration, and disposal to landfills or other legal depositories are employed.

Waste hierarchies guide the disposal approaches followed by most industrial, business, or government institutions. Modern paths to successful waste management policies, sustained by worldwide case studies, have been grounded not only on straightforward arrangements between some or all possible strategies but also on the perception that sometimes a lower option can be better than a higher one. Leading experts at the present time argue against these hierarchies, however observe that no strategy should be linearly pursued one after another but rather should be used in synergistic or complementary fashion. These hierarchies are now seen more as guidelines, able to provide basic information on the relative benefits brought by each of the strategies, rather than as preassembled processes.

The world of waste management tends to present situations merely as applied, or ready to be dealt with by engineers or chemists, as its performance is constructed in a technologically integrated way that often depends on this practical standard. Waste management is mostly nourished by endogenous technical talks rather than by health, environmental, economical, cultural, or other social debates on waste impacts and causes. There are now more joint efforts between manufacturers, merchants, activists, and lay people. Recent waste-management strategies have benefited from enlarged and exogenous joint frameworks, supported by institutional procedures that also take into account nontechnical issues and actors, notwithstanding the technical strategies that tend to be privileged.

Calculating the Risk and Cost

Risk management and cost assessment are among the approaches known for including the impacts and causes of waste. Using qualitative and quantitative research methods, these approaches acquire vital information needed to manage not only waste and its required disposal but also the potential effects or costs. Moreover, these methods are able

to inform particular decision-making processes on the adoption, construction, and location of particular technical strategies or to structure thematic disputes. Should the costs of handling waste be borne by public entities, or are they the producers' responsibility? This leads to legal questions that address the "polluter pay" principle, and the "product lifespan stewardship" associated with life-cycle analyses.

There are other general approaches that carry waste management into larger contexts such as ecological modernization. Such approaches mostly point to steady economic growth and industrial developments, overlapped with environmental stances and legal reforms concerning waste. Even so, within them we may always find extreme positions, framing waste in strict economic terms on the principle that it should always be rationalized into the building of competitiveness policies or market efficiency. On the other extreme, there are those who frame waste in conservationist terms and see it narrowly as a hazard that, above all, affects biological and social sustainabilities.

These and similar approaches make it hard to talk about waste management without regarding it and its debates as parts of a broader controversy involving social equality and environmental sustainability. For almost every waste management strategy there is an equal and opposite counterstrategy—or at least opposition against it. Perhaps the most prominent today is the social justice movement, which focuses on equity, empowering the disadvantaged and creating environmentally sustainable practices that bring economic development to a community without causing negative health effects. We can always find crucial issues within waste disposal, such as toxic emissions from incineration, persistent organic pollutants, permanence of radioactive sludges, landfill locations, end-of-life vehicles, electronic-waste increases, ocean dumping, energy inefficiencies, and large scale littering, as well as toxic coal ash spills and unstoppable oil gushing.

Critical Discussions

Waste management has grown as a topic of general concern, with most critical discussions emerging around its various technicalities. Debates on such a subject have played a substantial part in catalyzing public reflections about the links between, on one hand, technical interests, and on the other hand, public and private safety and welfare. Some of these debates even gain legitimacy, not only by helping to erect regulatory procedures in national and local domains but also by influencing the emergence and ratification of international treaties in relation to waste.

Examples of this include the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, or the inclusion of waste in broader agreements about sustainable global politics, as in the 1992 Rio Declaration on Environment and Development.

The emergence of social g roups and movements addressing concerns about waste management has been equally significant. Since the antinuclear and antitoxics oppositional movements of the 1960s, waste issues have grown to be an arena for civic

participation. We now have an engaged landscape of groups and movements, ranging from health to ecological justice, that has not yet stopped confronting or shifting the settings of waste management. In such a landscape we can observe resistance trends such as "not in my backyard" or "not in anyone's backyard," ideas such as "want not, waste not," or concepts such as "zero waste." We may also identify movements and projects that, in recent years, have engaged in the recovery of waste, at times ideologically associated with "freeganists" (people who limit their involvement with the conventional economy), at other times coupled to public interventions, as in the "Basurama" collective (a loose network of those interested in trash and its social effects). Other groups are based on the bricolage of "do it yourself," or even on artistic recovery activities, such as the "WEEE Man" project (Waste Electrical and Electronic Equipment Directive, which drew attention to itself by erecting a large humaniform sculpture made out of electronic waste).

Conclusion

No assessment of waste management has ever been deemed to be completely consensual. Major disputes involve questions about the extent to which we should limit ourselves in surveying waste-management strategies. As a result, we find "throwaway" ideologies that leave society and culture overflowing with the costs of producing goods and services. Managing waste is considered impossible or inadvisable when and where regular economic growth seems to depend on "planned obsolescences" promoting waste itself, with junk piles of devalued residues matched by stockpiles of commodities. Most of these outlooks have not been consistently considered appropriate in major waste-management approaches, but their persistence has often helped to support various critiques concerning the source of what is wasted in our mass systems of invention, production, distribution, and consumption.

See also **Incineration and Resource Recovery; Sustainability (vol. 1)**

Further Reading

Kinnaman, Thomas C., ed., *The Economics of Residential Solid Waste Management.* Burlington, VT: Ashgate, 2003.

Melosi, Martin V., *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present,* abridged ed. Pittsburgh: University of Pittsburgh Press, 2008.

Rathje, William, and Cullen Murphy, *Rubbish! The Archaeology of Garbage.* New York: Harper Collins, 1992.

Scanlan, John, *On Garbage.* London: Reaktion Books, 2005.

Strasser, Susan, *Waste and Want: A Social History of Trash.* New York: Owl Books, 2000.

Thomas, Vivian E., *Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport.* Charlottesville: University of Virginia Press, 2009.

WATER POLLUTION

Robert William Collin

Water is essential for life, and water quality is often at odds with the demands of increased development. Conflicting laws, poorly enforced environmental regulations, and increased citizen monitoring are the ingredients for powerful and long-lasting controversy.

Water pollution is a term that describes any adverse environmental effect on water bodies (lakes, rivers, the sea, groundwater) caused by the actions of humankind. Although natural phenomena such as volcanoes, storms, and earthquakes also cause major changes in water chemistry and the ecological status of water, these are not pollution. Water pollution has many causes and characteristics. Humans and livestock produce bodily wastes that enter rivers, lakes, oceans, and other surface waters. These wastes increase the solids suspended in the water and the concentration of bacteria and viruses, leading to potential health impacts.

Increases in nutrient loading may lead to eutrophication, or dead zones, in lakes and coastal water. Organic wastes deplete the water of oxygen, which potentially has severe impacts on the whole ecosystem. Industries and municipalities discharge pollutants, permitted and sometimes unpermitted, into their wastewater, including heavy metals, organic toxins, oils, pesticides, fertilizers, and solids. Discharges can also have direct and indirect thermal effects, especially those from nuclear power stations, and also reduce the available oxygen. Human activities that disturb the land can lead to silt running off the land into the waterways. This silt can have environmentally detrimental effects even if it does not contain pollution. Silt-bearing runoff comes from many activities, including construction, logging, mining, and farming. It can kill aquatic and other types of life. Salmon, for example, do not spawn if the temperature of the water is too high.

Another environmental controversy around water quality is that when water becomes polluted, native species of plants and animals fail to flourish in rivers, lakes, and coastal waters. Depending on how exactly the water quality is impaired, some of these species may be threatened with extinction. If, for example, the water quality is impaired through agricultural runoff containing nitrogen and other chemical fertilizers, this may precipitate algae blooms. These blooms can warm up the water as well as rapidly deplete oxygen in the water.

Pollutants in water include chemicals, pathogens, and hazardous wastes. Many of the chemical substances are toxic. Many of the municipal water supplies in developed and undeveloped countries can present health risks. Water quality standards consist of three elements: the designated uses assigned to those waters (such as public water supply, recreation, or shellfish harvesting), criteria to protect those uses (such as chemical-specific thresholds that should not be exceeded), and an antidegradation policy intended to keep waters that do meet standards from deteriorating from their current condition.

Water regulations control point sources of pollution. Some environmentalists consider the definition of *point source* to be too narrow because it allows smaller discharges into the water. It has been estimated that between 50 and 80 percent of water pollution comes from non-point sources. Non–point source (NPS) pollution comes from many sources, including human habitation and industrial emissions currently unaccounted for. NPS pollution begins with precipitation moving on and through the ground. As the force of gravity pulls the water down, it carries with it natural and human-made pollutants. Many of these pollutants end up in lakes, rivers, wetlands, coastal waters, and underground sources of drinking water. These pollutants include the following:

- Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas
- Oil, grease, and toxic chemicals from urban runoff and energy production
- Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks
- Salt from irrigation practices and acid drainage from abandoned mines
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems

Atmospheric deposition is also a source of NPS pollution. An incinerator next to a lake could be a source of water pollution.

NPS Pollution

States report that NPS pollution is the leading remaining cause of water quality problems. The effects of NPS pollutants on specific waters vary and may not always be fully assessed. These pollutants have harmful effects on drinking water supplies, recreation, fisheries, and wildlife. With only about 20 percent of lakes and rivers being monitored in any way and much to learn about the movement of underground water and aquifers, the degree of uncertainty as to non–point sources is currently very large. Even water areas that are monitored still allow permits to industries and cities to discharge treated and untreated waste and chemicals.

NPS pollution results from a wide variety of human activities on the land. These activities touch upon debates in areas from private property to corporate environmental responsibility. Governmental responses to water pollution from NPSs are spread across the spectrum. Some activities are federal responsibilities, such as ensuring that federal lands are properly managed to reduce soil erosion. Some are state responsibilities, for example, developing legislation to govern mining and logging and to protect groundwater. Others are local, such as land-use controls like erosion control ordinances. The coordination of intergovernmental relations and communication between these levels of government about water pollution approaches are poor, contributing to the controversy.

The United States developed new environmental policies in the past 35 years to clean up water pollution by controlling emissions from industries and municipal sewage

treatment plants. This last 35-year period was preceded by 500 years of urbanization and then industrialization and waves of immigration from every coast. There was little in the way of enforceable environmental legislation in the United States until 1970. Navigable waterways have been intentionally and unintentionally altered in drastic ways, such as the rechanneling the Mississippi River by the U.S. Army Corp of Engineers. Modern plumbing devices, such as backflow regulators, help keep wastewater separate from drinking water. Urbanized areas without backflow regulators on industry eventually taint the entire watershed. In many areas, it is often the case that as water quantity goes down so does water quality. In places such as Texas, which practiced a form of waste discharge called deep well injection, some of the water sources may be contaminated. The accumulated wastes from the water pollution both before and after the formation of the U.S. Environmental Agency (EPA) will themselves foster cleanup controversies. Fear of liability for past acts of environmental contamination is a powerful motivator, but it can lead to either forward thinking or attempts to sweep the problem under the rug.

NPS pollution is the largest source of water quality problems in the United States. It remains the catchall term for all other than point sources of water pollution. Point sources are regulated by the EPA, which in 2010 announced an overhaul of regulations that would allow officials to keep a close watch on dozens of contaminants simultaneously and tighten rules on chemicals used by industry. Each watershed is allowed to have a limited overall amount of water pollution. If all sources were counted, including non–point sources, the overall amount of permissible chemical discharges into the watershed would decrease. This could result in fewer permits being issued. The fewer permits issued generally means less industrial economic development. Industries and governments prefer more industrial and manufacturing economic development. Some industries prefer not to compete with other industries in the same watershed and may not want to share a water permit. Uncertainty of the water permit can deter financial investors from long-term investments in a plant or real property.

Other stakeholders—like farmers, agribusiness, and Native Americans—all hold various rights and expectations for the same water. NPS of water pollution have serious unresolved environmental issues that involve many stakeholders. Accurate environmental monitoring is a necessity as the foundation of sound environmental policy, especially if sustainability is the goal. The range of disrespect for the environment from some stakeholders shocks other stakeholders, who feel reverence for the environment when it comes to water pollution. The wide range of environmental expectations becomes controversial when accurate environmental monitoring and research reveal the true extent of the environmental impacts of water pollution.

Known NPSs of Water Pollution

Agribusiness is the leading source of water quality impairments, degrading 60 percent of the impaired river miles and half of the impaired lake acreage surveyed by states,

territories, and tribes. Runoff from urban areas is also a very large source of water quality impairments. Roads, parking lots, airports, and other impervious paved surfaces that occur with U.S. land development increase the runoff of precipitation into other parts of the watershed. The most common NPS pollutants are soil sediment and chemical nutrients. Other NPS pollutants include pesticides, pathogens (bacteria and viruses), salts, oil, grease, toxic chemicals, and heavy metals.

Role of Communities

Communities play an important role in addressing NPS pollution. When coordinated with federal, state, and local environmental programs and initiatives, community-based NPS control efforts can be highly successful. More than 500 active volunteer monitoring groups currently operate throughout the United States. Monitoring groups may also have information about other NPS pollution projects, such as beach cleanups, stream walks, and restoration activities. More than 40 states now have some type of program to help communities conserve water. NPS pollution starts at the household level. Households, for example, can water lawns during cooler hours of the day, limit fertilizer and pesticide applications, and properly store chemicals to reduce runoff and keep runoff clean. Pet wastes, a significant source of nutrient contamination, should be disposed of properly. Communities can also replace impervious surfaces with more porous surfaces.

Runoff from Urban Areas

NPS pollution often come from paved, impermeable road surfaces. These can be in urban, suburban, or rural areas. Many vehicle emissions run off from the pavement with water when it rains. Effective drainage systems can remove this water to city water systems, but these do not necessarily treat the runoff for its load of pollutants. In many cities, the consolidated sewer overflow system, means that when it rains heavily the sewers simply overflow into the nearest river or lake. Many urban sewer and water systems are old and need repair, especially those made with lead pipes.

Cities with storm sewer systems that quickly channel runoff from roads and other impervious surfaces increase their environmental impacts with large flow variations. Runoff gathers speed in the storm sewer system. When it leaves the system, large volumes of quickly flowing runoff erode riparian areas and alter stream channels. Native fish, amphibians, and plants cannot live in urban streams impacted by urban runoff.

Conclusion

Water pollution will become more controversial. As water pollution standards mature, environmental impact assessment and pollution accountability will increase. Many

stakeholders now assume they have the right to fresh, clean water, and as much of it as they want. Where the water begins to run out, violent confrontations can occur. In Klamath, Oregon—the site of a furious water controversy between farmers, various agencies of the federal and state government, and environmentalists—violence erupted in 2006 as Native American children were assaulted on their school bus by farmers angry at their loss of water. Although the Klamath tribe tried to avoid the controversy, they do have water rights by treaty and law. The farmers' property rights lawsuit, claiming that they owned the water as a property right, was dismissed in a 57-page opinion in federal court. In 2007, Vice President Dick Cheney was investigated by a House committee to see if he had illegally intervened in this dispute and commanded federal agencies to let agribusiness get the water. The committee was unable to find conclusive proof that Cheney directly gave incriminating orders. In 2010, the governors of Oregon and California, the U.S. secretary of the interior, and leaders of Native American tribes signed an agreement in part establishing water-sharing rights between farmers and fishers.

As more and more of the aquatic environment becomes known, the issue of who pays for cleanup and for dredging becomes increasingly salient. There are controversies over the environmental impacts of these activities alone. In arid developing areas where water can become scarce, those who use it and pollute it affect many other groups. There will be an increase in stakeholder accountability for pollution sources as environmental law enforcement works its way upstream. Litigation and community engagement will increase in the controversy over water pollution.

See also **Acid Rain; Cumulative Emissions; Industrial Agricultural Practices and the Environment; Pesticides; Transportation and the Environment**

Further Reading

Best, Gerry, *Environmental Pollution Studies.* Liverpool, UK: Liverpool University Press, 2000.

Helmer, Richard, *Water Pollution Control.* London: Spon Press, 1998.

Natural Resources Defense Council, Issues: Water. www.nrdc.org/water/pollution/default.asp

Pagenkopf, James R., et al., *Municipal Waste-Water Treatment.* New York: Wiley, 2002.

Sources of Water Pollution, www.soest.hawaii.edu/GG/ASK/waterpol3.html

Spellman, Frank R., *The Science of Water: Concepts and Applications.* Boca Raton, FL: CRC Press, 2008.

Sullivan, Patrick J., Franklin J. Argady, and James J. J. Clark, *The Environmental Science of Drinking Water.* Burlington, MA: Butterworth-Heinemann, 2005.

U.S. Environmental Protection Agency, Polluted Runoff (Nonpoint Source Pollution). www.epa.gov/nps

Wargo, John, *Green Intelligence: Creating Environments that Protect Human Health.* New Haven, CT: Yale University Press, 2009.

WATERSHED PROTECTION AND SOIL CONSERVATION

Robert William Collin

Watersheds are tracts of land that feed pools of water both above and below ground. They funnel rainfall and snowmelt, for example, through wetlands, which are natural filtration systems. The spongy soil constituting a wetland traps sediment sometimes carrying pollutants. The water trickling down becomes increasingly free of contaminants as it makes its way down to replenish underground aquifers, which humans draw on for drinking water. Land composition varies in a watershed. A single watershed may consist of mountains, prairie and/or rolling hills.

Watersheds left unprotected from development may suffer environmental impacts that deplete soil resources. Logging, grazing, some types of mining, paving over land with impervious surfaces, and excessive rechanneling of major watercourses have affected watersheds in negative ways. Many farmers and environmentalists want to prevent soil depletion by protecting watersheds. Communities want to protect watersheds for water quality. For watershed protection to work as a policy it may require the taking of private property or the terminations of long-term leases given to loggers, ranchers, and mining corporations. Water use and quality are generally becoming controversial.

Watershed protection is increasingly seen by some as excessive government intervention. Others see it as a necessary component of any successful sustainability program or policy.

Considering the value of one watershed to the residents of Montana, on March 3, 2010, Montana Senator Max Baucus introduced the North Fork Watershed Protection Act of 2010, which prohibits mining on federally owned lands and interests in the North Fork Flathead Watershed and protects this vital natural resource from corruption and contamination from mineral mining or geothermal leasing. It also prohibits anyone from patenting any life form or material found in the area in its original form or by slight alteration such as changing an innocuous enzyme in the item. On April 28, 2010 the bill was referred to the U.S. Energy and Natural Resources Subcommittee on Public lands and Forests, which held hearings to help consider the measure.

Background

Visions of hurricanes and floods tearing the Midwest's luscious black top soil downstream prompted many to ask the federal government to intervene in the 1930s. The early legislation set the tone for today's policy. Most of the federal legislation for watershed protection emerged in this time to protect rural and agricultural interests. The Watershed Protection and Flood Prevention Act of 1954, as amended, authorized Natural Resources Conservation Service (NRCS) to cooperate with states and local agencies to carry out works of improvement for soil conservation and for other purposes including

flood prevention; conservation, development, utilization, and disposal of water; and conservation and proper utilization of land. NRCS implements the Watershed Protection and Flood Prevention Act through the following programs:

- Watershed Surveys and Planning
- Watershed Protection and Flood Prevention Operations
- Watershed Rehabilitation
- Watershed Surveys and Planning

The NRCS cooperates with other federal, state, and local agencies in making investigations and surveys of river basins as a basis for the development of coordinated water resource programs, floodplain management studies, and flood insurance studies. NRCS also assists public sponsors to develop watershed plans. The focus of these plans is to identify solutions that use conservation practices, including nonstructural measures, to solve problems. Each project must contain benefits directly related to agriculture, including rural communities that account for at least 20 percent of the total benefits of the project.

Watershed Operations

Watershed Operations is a voluntary program that provides assistance to local organizations sponsoring authorized watershed projects, planned and approved under the authority of the Watershed Protection and Flood Prevention Act of 1954, and 11 designated watersheds authorized by the Flood Control Act of 1944. NRCS provides technical and financial assistance to states, local governments, and tribes (project sponsors) to implement authorized watershed project plans for the purpose of watershed protection; flood mitigation; water quality improvements; soil erosion reduction; rural, municipal, and industrial water supply; irrigation water management; sediment control; fish and wildlife enhancement; and wetlands and wetland function creation and restoration. There are over 1,500 active or completed watershed projects. As communities become more involved in environmental issues they quickly learn about their particular watershed.

Flood Prevention Program

The Flood Control Act of December 22, 1944, authorized the Secretary of Agriculture to install watershed improvement measures (http://www.nrcs.usda.gov/pro grams/watershed/pl534.html).

This act authorized 11 flood prevention watersheds. The NRCS and the Forest Service (FS) carry out this responsibility with assistance from other bureaus and agencies within and outside the U.S. Department of Agriculture (USDA). Watershed protection and flood prevention work currently under way in small upstream watersheds all over the United States sprang from the exploratory flood prevention work authorized by

TABLE 1. Flood Prevention Watersheds

Watershed Name	State	Watershed Size
Buffalo Creek	New York	279,680 acres
Middle Colorado River	Texas	4,613,120 acres
Coosa River	Georgia, Tennessee	1,339,400 acres
Little Sioux River	Iowa	1,740,800 acres
Little Tallahatchie River	Mississippi	963,977 acres
Los Angeles River	California	563,977 acres
Potomac River	Virginia, W. Virginia, Maryland, Pennsylvania	4,205,400 acres
Santa Ynez River	California	576,000 acres
Trinity River	Texas	8,424,260 acres
Washita River	Oklahoma, Texas	5,095,040 acres
Yazoo River	Mississippi	3,942,197 acres

the Flood Control Act of 1944, and from the intervening 54 pilot watershed projects authorized by the Agriculture Appropriation Act of 1953. These projects are the focus of much study as watershed protection and soil conservation have become increasingly high-profile issues following the impact of Hurricane Katrina on New Orleans in 2006. Many accuse these types of projects as too little too late for prevention of risk to urban areas from natural disasters. The 11 watershed areas are listed below in Table 1.

Because the authorized flood prevention projects include relatively large areas, work plans are developed on a subwatershed basis. Surveys and investigations are made and detailed designs, specifications, and engineering cost estimates are prepared for construction of structural measures. Areas where sponsors need to obtain land rights, easements, and rights-of-way are delineated. This can present an issue when private property owners do not want to cooperate with flood prevention and soil conservation. There are presently over 1,600 projects in operation.

Watershed Projects Provide Thousands of Acres of Fish and Wildlife Habitat

There are 2,000 NRCS-assisted watershed projects in the United States, with at least one project in every state. Some projects provide flood control, while others include conservation practices that address a myriad of natural resource issues such as water quality, soil erosion, animal waste management, irrigation, water management, water supplies, and recreation. Whatever the primary purpose, watershed projects have many community benefits such as fish and wildlife habitat enhancement. Over 300,000 acres of surface water have been created by the construction of 11,000 watershed dams.

Lakes generally range in size from 20 to 40 surface acres and provide a good mix of deep water and shoreline riparian areas. Some lakes have up to several hundred acres of surface water, and many had recreational areas developed around them. Lakes formed by the watershed dams have created thousands of acres of open water providing excellent fish and wildlife habitat and areas for migrating waterfowl to rest and feed. Conservation practices in watershed projects such as buffers, pasture and rangeland management, tree plantings, ponds, conservation cropping systems, and conservation tillage provide cover, water, and food for a variety of birds and animals.

Thousands of people enjoy fishing, hiking, boating, and viewing wildlife in these very scenic settings each year. NRCS-assisted watershed projects provide a wide diversity of upland habitat landowners in watershed projects with technical and sometimes financial assistance in applying conservation practices. Many of these practices create or improve wildlife habitat and protect water quality in streams and lakes.

Although watershed projects may offer benefits to recreational users, others wonder about their environmental impacts. To what end is the soil being conserved? What if the area is a natural floodplain? What are the impacts of recreational users on endangered or threatened species? These questions and others abound in the traditional soil conservation and floodplain protection policies.

Creating and Protecting Wetlands: Watershed Program Results

According to the Natural Resources Conservation Service, they have assisted in creating the following:

- Upland wildlife habitat created or enhanced: 9,140,741 acres
- Wetlands created or enhanced: 210,865 acres
- Stream corridors enhanced: 25,093 miles
- Reduced sedimentation: 49,983,696 tons per year

The 2,000 watershed projects have established a $15 billion national infrastructure, by their own estimate that is providing multiple benefits to over 48 million people.

- Agricultural flood damage reduction: $266 million
- Nonagricultural flood damage reduction: $381 million
- Agricultural benefits (nonflood): $303 million
- Nonagricultural benefits (nonflood): $572 million
- Total monetary benefits: $1.522 billion
- Number of bridges benefited: 56,787
- Number of farms and ranches benefited: 154,304
- Number of businesses benefited: 46,464
- Number of public facilities benefited: 3,588

- Acres of wetlands created or enhanced: 210,865
- Acres of upland wildlife habitat created or enhanced: 9,140,741
- Miles of streams with improved water quality: 25,093
- Number of domestic water supplies benefited: 27,685
- Reduced soil erosion (tons per year): 89,343,55
- Tons of animal waste properly managed: 3,910,10
- Reduced sedimentation (tons per year): 49,983,696
- Water conserved (acre feet per year): 1,763,472

The Watershed Program has been used by communities for over 50 years. The authorizing legislation has been amended several times to address a broader range of natural resource and environmental issues, and today the program offers communities more assistance to address some environmental issues. There are watershed projects in every state. Over 2,000 projects have been implemented since 1948. New projects are being developed each year by local people.

Conclusion

As water resources become scarce, the competition for water will force water users to exert all rights in water and the land. In places where floods occur, property owners will want flood control as watershed protection. Communities want clean and safe drinking water, and this is becoming a scarce resource even in communities with water. Watersheds absorb all past and present wastes, by-products, emissions, discharges, runoff, and other environmental impacts. Their protection will require increasingly stringent controls on all water users and residents of the watershed. Private property owners and land developers object to this because they may have planned for a more profitable use. Without water it is difficult to make a profit in developing land. Sustainable sources of safe water are essential to many stakeholders. Watershed protection will become increasingly controversial as it moves from 1940s and 1950s soil erosion prevention policy to one that incorporates accurate monitoring of water and precepts of sustainability in urban and suburban settlements as well as rural ones.

See also **Logging; Mining of Natural Resources; Pesticides; Sprawl; Water Pollution; Sustainability (vol. 1)**

Further Reading

deGraaff, Jan, et al., eds., *Monitoring and Evaluation of Soil Conservation and Watershed Development Projects.* Enfield, NH: Science Publishers, 2007.

Hirt, Paul W., *A Conspiracy of Optimism: Management of the National Forests since World War Two.* Lincoln: University of Nebraska Press, 1994.

Mastney, Lisa, and Sandra Postel, *Liquid Assets: The Critical Need to Safeguard Freshwater Ecosystems.* Washington, DC: Worldwatch Institute, 2005.

Morandi, Larry, Barbara Foster, and Jeff Dale, *Watershed Protection: The Legislative Role.* Washington, DC: National Conference of State Governors, 1998.

Open Congress, S.3075—North Fork Watershed Protection Act of 2010. http://www.opencongress.org/bill/111-s3075/show

Riley, Ann Lawrence, *Restoring Streams in Cities: A Guide for Planners, Policymakers, and Citizens.* Washington, DC: Island Press, 1998.

Sabatier, Paul A., *Swimming Upstream: Collaborative Approaches to Watershed Management.* Cambridge, MA: MIT Press, 2005.

Sanderson, James, and Larry D. Harris, eds., *Landscape Ecology: A Top-Down Approach.* Boca Raton, FL: Lewis Publishers, 2000.

U.S. Environmental Protection Agency, Monitoring and Assessing Water Quality: Volunteer Monitoring. www.epa.gov/owow/monitoring/vol.html

U.S. Environmental Protection Agency, Watersheds. www.epa.gov/owow/water shed

WILD ANIMAL REINTRODUCTION

Robert William Collin

To prevent wolves from becoming extinct, the National Park Service has reintroduced them on park lands. Nearby ranchers protested this, claiming the wolves prey on their herds. Environmentalists claim ranchers killed some of the wolves. Grizzly bears may be reintroduced in national parks next.

One of the biggest reasons for the reintroduction of wolves back into Yellowstone was that this was part of their original habitat. Wolves had originally roamed from Yellowstone all the way down to Mexico. While many environmentalists and wildlife agencies were in favor of the reintroduction of the wolves, many other groups were against it. The main people who were against the reintroduction of the wolves were the ranchers who made a living in the areas surrounding the park. During its 70 years of absence from the Rockies, the grey wolf had been protected under the Endangered Species Act, which was passed in 1973. Therefore, a person could be punished with up to a $100,000 fine and up to one year in jail for killing a wolf. Back in the 1850s, there was a major population increase of the wolves in the United States, stemming from the westward movement of settlers. These settlers killed more than 80 million bison, and the wolves started to scavenge on the carcasses left behind. By the 1880s, most of the bison were gone, so the wolves had to change food sources. This meant that they turned their attention to domestic livestock, causing farmers and ranchers to develop bounties and other vermin-eradication efforts. Owing to the lack of a food source as well as the bounties being offered, the wolf population plummeted in the lower 48 states.

When the numbers in an animal population become low, the genetic diversity of that species decreases dramatically, which can hasten the species' extinction. One of the premises of governmental intervention in these environmental controversies around

species reintroduction is to prevent extinction. An important aspect of this is gene pool diversity. This requires active animal management by humans, including an in-depth knowledge of the genes of specific animals and packs. One aspect of this controversy is the need for more scientific monitoring of animals facing extinction.

When the wolf population dropped, there was still a safe place. That was Yellowstone National Park, established in 1872. In 1916 the National Park Service started to eliminate all predators in Yellowstone National Park, which meant killing 136 wolves, 13,000 coyotes, and every single mountain lion. By 1939, this program was shut down, but all the wolves were dead.

What Is a Wolf Pack?

A wolf pack is very hierarchical and organized. Dominance and submission establish the order of power in the pack. A pack consists of an alpha male, an alpha female, and their descendants. The alpha pair are the only two that breed. The natural pattern of breeding within a wolf pack works to protect their genetic diversity if populations are healthy.

The Reintroduction Program

In January 1995, some 14 wolves from many separate packs were captured in Canada and brought into Yellowstone Park. The next step in their reintroduction was to place them in one-acre acclimation pens. Capturing wolves from different packs helped protect their genetic diversity. Biologists then created packs from these captured wolves.

While in captivity, the wolves were fed large amounts of meat in the form of roadkill or winter carrion from the area. This often consisted of deer, elk, and smaller animals. Each pack was fed once every 7 to 10 days, which is how frequently they eat in the wild. A small wolf pack of six in the wild will consume on average 800 pounds of meat per month. In Yellowstone National Park, that would average out to two adult elk and maybe a small deer per small pack per month. Today, 90 percent of all wolf kills are elk; the other 10 percent consist of bison, deer, moose, and other small game.

Ranchers' Resistance to Wolf Reintroduction

In the West, ranchers control large tracts of land. Sometimes they own the land outright, and sometimes the land is leased from the U.S. government. The ranchers' concerns are basic. The wolf is a predatory animal that finds the easiest type of food source available. An animal that has been domesticated and no longer has natural predators is very easy prey.

From 1995 to 1998, for example, 9 head of cattle and 132 sheep were killed by wolves. The wolves that killed the livestock were mainly traveling from Canada to Yellowstone, across Montana. Defenders of Wildlife, an organization dedicated to wildlife

preservation (including predator preservation), has worked to compensate ranchers financially for cattle and sheep lost to wolves. Many environmentalists fear that ranchers will kill off all of the newly introduced wolves. Only a small number of wolves have died legally, while many more have died of unknown causes. The reintroduction of the wolf has caused many problems, ranging from lawsuits to loss of livestock. The two lawsuits that have been filed contended that it was unconstitutional to reintroduce the wolves into the park. The judge who was looking over these lawsuits said that the wolves needed to be returned to Canada, but Canada did not want them. Then the judge said that all the introduced wolves were to be sent to a zoo, but no zoo had room for them. Finally the judge said all of the introduced wolves needed to be destroyed, but the environmentalists protested. In the end, nothing was done.

The Role of States

As of 2009, the population of the wolf was 98 individuals in 12 packs, the recovery goal of 10 breeding pairs having been met a decade earlier (2000). This means that the states are now trying to get the wolf off the endangered species list and under state control. Back around 1998, all of the states (Wyoming, Idaho, and Montana) started to make plans for how they were going to manage the wolf populations in their states. Each plan was then reviewed by wolf specialists and depredation specialists to see what they thought of the plans. Each state had its plans finished by 2002. Wyoming was the first to send its plan to be reviewed by the U.S. Congress. The other two states waited to see what would come of Wyoming's plan before they sent theirs in. In 2003 the Wyoming Grey Wolf Management Plan was sent back to the state, saying that it would not work. Most people probably felt the plan did not go through because Wyoming was planning on managing the wolves as if they were a predator species. This meant that the wolves could be hunted freely as long as they were off national forest or national park property and on private property. Many environmentalists did not want this, since they felt this was the reason all the wolves had been lost in the first place. The Montana and Idaho plans were different from Wyoming's. These states were planning on putting a trophy hunting season out on the wolf. At present, Wyoming has not made any changes to its plan, even though Congress wants them to change it to better manage the wolf population. Wyoming intends to take this matter to the courts.

Conclusion

This is a highly controversial topic at the local level that will continue to be debated in courts, legislatures, and federal agencies. As more species become endangered and protected, successful reintroduction programs around national parks and other federal lands will be initiated. The debate in this controversy may move to legislatures. As federal and state wildlife and park agencies seek more funding for reintroduction programs, others will seek to prevent this. Ranchers and others in surrounding communities will continue

to resist the siting of dangerous animals among them. These very communities have often benefited from the presence of nearby national parks as well as long-term grazing leases from the federal government at very favorable rates.

See also **Endangered Species; Stock Grazing and the Environment**

Further Reading

Lowry, William R., *Repairing Paradise: The Restoration of America's National Parks.* Washington, DC: Brookings Institution Press, 2009.

Maehr, David S., et al., eds., *Large Mammal Restoration: Ecological and Sociological Consideration in the 21st Century.* Washington, DC: Island Press, 2001.

Smith, Douglas, and Gary Ferguson, *Decade of the Wolf: Returning the Wild to Yellowstone.* Guilford, CT: Lyons Press, 2005.

Urbiqkit, Cat, *Yellowstone Wolves: A Chronicle of the Animal, the People, and the Politics.* Granville, OH: McDonald & Woodward, 2008.

WIND ENERGY

Robert William Collin and Scott M. Fincher

Wind power comes from turbines that generate electricity. Proponents assert that wind power can be harnessed to be a nonpolluting, renewable source of energy to meet electric power needs around the world, but some communities do not want the turbines near homes or schools. The turbines can create noise that studies show causes headaches in some people and death for some animals, including goats and wildlife. In cold climates a turbine's blades can throw ice and snow. Sometimes the variation in wind turbulence can cause traditional fan blades to come off.

Wind power is a form of renewable energy. As portions of the earth are heated by the sun, the heated air rises, and air rushes to fill low-pressure areas, creating wind. The wind is slowed as it brushes the ground so it may not feel windy at ground level. The power in the wind might be five times greater at the height of the blade tip on a large, modern wind turbine. Entire areas of a region might be very windy while other areas are relatively calm. The majority of people do not live in high-wind areas, although climate change could increase that number.

Wind into Electricity

Wind generates electricity as it moves the blades of a windmill or wind turbine. In a modern, large-scale wind turbine, the wind is converted to rotational motion by a rotor, which is a three-bladed assembly at the top of the wind turbine. The rotor turns a shaft that enters a gearbox that greatly increases the rotational shaft speed. The output shaft is connected to a generator that converts the rotational movement into electricity.

WIND FARMS AND NOISE

One common controversy with earlier wind turbines was their noise. Noise issues are difficult because it is hard to measure noise in real-life conditions. The following are measurements in decibels of some common noises:

Source/Activity	Indicative noise level dB
Threshold of hearing	0
Rural nighttime background	20–40
Quiet bedroom	35
Wind farm at 350 m	35–45
Car at 40 mph at 100 m	55
Busy general office	60
Truck at 30 mph at 100 m	65
Pneumatic drill at 7 m	95
Jet aircraft at 250 m	105
Threshold of pain	140

Although modern turbines are quieter, no research has been undertaken about the cumulative effects of constant noise from wind turbines.

The wind resource in the United States is vast. Proponents claim there is theoretically enough wind flowing across the United States to supply all of our electricity needs if today's technology is used to harness it. Assuming access to the national electric grid, windy North Dakota alone could supply over 40 percent of the nation's electricity. Offshore sites in the mid-Atlantic region were recently identified by Google and various other corporate partners as forming the basis of a proposed 6,000-MW wind energy system to be developed beginning in 2013. Currently, however, less than 1 percent of U.S. electricity is supplied by wind power.

Environmental Effects

One of wind energy's important benefits is its minimal effect on the environment. In the United States, most electricity is produced from coal and other fossil fuels (70 percent), nuclear energy (20 percent), and hydroelectric sources (dams), which have a greater effect on the environment. There has been some controversy about the noise the wind turbines make.

Recently there has been major technological innovation in the design of multidirectional, conical turbines. Some engineers claim to have designed them small enough to fit on top of rooftops in urban areas. Cities such as Chicago have great interest in these "microturbines," but there are many skeptics. An emerging issue is the government regulation of microturbines on urban rooftops. Given the density of the unit in urban areas it is unlikely that every building could harness the wind energy. The buildings

THE CAPE WIND PROJECT

In 2001, Massachusetts approved a measure putting a windmill farm in Nantucket Sound off Cape Cod, one of the country's environmental jewels. Known as the Cape Wind Project, it was proposed by Cape Wind Associates, owned by developer Jim Gordon. In response, the Alliance to protect Nantucket Sound formed that year to block the project. The farm is expected to cost between $1 billion and $2 billion to construct. Once completed, it will be the first offshore wind energy farm in coastal waters under U.S. jurisdiction. It would be located on Horseshoe Shoal.

The first six months of 2010 saw decisions on the project. The opposition publicized its cause and sought support, the government and the developer maneuvered and solidified the backing they had received.

Supporting the opposition, the National Park Service determined that Nantucket Sound is eligible for listing on the National Register of Historic Places, which would prevent any change in the area's character due to development. The Park Service ruled that because of the sound's cultural and spiritual significant to two Native American nations, it could not be adulterated. On January 4, 2010, U.S. Interior Secretary Ken Salazar gathered stakeholders together to discuss an agreement on how to mitigate potential impacts on historic and cultural resources if the project went forward. He set March 1 as a deadline for a decision, and threatened to "take the steps necessary to bring the permit process to conclusion" if an agreement was not reached by then. The deadline was not met.

On March 22, 2010, all sides delivered testimony at a hearing before the Advisory Council on Historic Preservation. On April 28, 2010, Salazar approved the Cape Wind project. Opponents vowed court action.

On May 7, 2010, Cape Wind announced a power purchase agreement with National Grid to sell half the project's output for more than twice current retail rates for electricity. The deal is subject to approval by the state government.

Ten days later, on May 17, 2010, the Federal Aviation Administration (FAA) resolved its concerns that windmills could cause interference with radar systems at nearby Otis Air Force Base. Cape Wind was cleared for construction by the FAA. Cape Wind agreed to make adjustments to the base's radar system to ensure its effectiveness after the wind farm was developed.

In June, the Alliance to Protect Nantucket sound filed a lawsuit claiming that the federal approval process had violated the Endangered Species Act and other laws. In late August, the Massachusetts Supreme Judicial Court ruled that state has the power to override community opposition and issue building permits for the project. Unless further holds are placed on the project, building should begin in 2011.

—Debra Ann Schwartz

would have to be able to take both the weight of the units and the stress of wind turbulence. Nonetheless, many engineers and builders think that lighter and stronger materials will address these problems. There is promise of rapid technological advancement increasing the efficiency and safety of wind power.

New Technology Raises Appeal

Technological advancements in wind turbines and in other ways to increase their efficiency may could them more appealing. Some experts say they can make them function on a building. Globally, wind markets are growing. The Global Wind Energy Council analyzed wind energy data from 70 nations. It reports that in 2006 total installed wind energy capacity was 74,223 megawatts (MW). In 2005, it was 59,090 MW. The wind energy market grew by 41 percent in 2006. Europe has the largest market share, with 65 percent of the total. Germany and Spain are especially involved in wind energy, and alternative, renewable energy generally. Asia had 24 percent of new installations in 2006, according to the council report. Canada increased its wind power capacity from 683 MW in 2005 to 1,459 MW in 2006. The United States has the highest new installed wind power capacity, reporting 2,454 MW in 2006. Google's proposed Atlantic Wind Connection will, when completed, nearly triple that capacity and likely spur interest in other, similar projects.

Conclusion

As nonrenewable sources of energy dwindle, alternative sources must be found to replace them. Wind power is an alternative. If developed on a large scale, wind turbines could encounter community resistance because of concerns over noise and documented health effects to humans and animals.

With the development of a national policy on alternative fuels, other issues are emerging. How much money should the government invest in supporting wind power? Can a government use its power to take private property for wind turbines to generate power for community use? Would it matter if it were a private company, a utility, or a city that owned the wind turbines and/or land underneath it?

Concern about energy independence and environmental effects influences the use of wind power. Given the recent advancements in technology of wind turbines and the robust increases in global wind energy markets, it is likely that environmental controversies associated with them will increase. However, technology may be able to overcome concerns about noise and other issues.

See also **Climate Change; Global Warming; Solar Energy; Sustainability (vol. 1)**

Further Reading

Asmus, Peter, *Reaping the Wind: How Mechanical Wizards, Visionaries, and Profiteers Helped Shape Our Energy Future.* Washington, DC: Island Press, 2001.

Gipe, Paul, *Wind Energy Comes of Age.* New York: Wiley, 1995.

Hills, Richard Leslie, *Power from Wind: A History of Windmill Technology.* Cambridge, UK: Cambridge University Press, 1994.

Pasqualetti, Martin J., Paul Gipe, and Robert Righter, *Wind Power in View: Energy Landscapes in a Crowded World.* St. Louis, MO: Elsevier, 2002.

Patel, Mukund R., *Wind and Solar Power Systems.* Boca Raton, FL: CRC Press, 1999.

Pimentel, David, ed., *Biofuels, Solar, and Wind as Renewable Energy Systems: Benefits and Risks.* New York: Springer, 2008.

Union of Concerned Scientists, Wind Power: Clean, Sustainable, and Affordable. www.ucsusa.org/clean_energy/coalvswind/index.html

U.S. Department of the Interior, Wind Energy Development Programmatic EIS Information Center. windeis.anl.gov

Wind Power: Environmental and Safety Issues, Wind Energy Fact Sheet 4. www.dti.gov.uk/files/file17777.pdf

Bibliography

Energy

Asmus, Peter, *Reaping the Wind: How Mechanical Wizards, Visionaries, and Profiteers Helped Shape Our Energy Future.* Washington, DC: Island Press, 2001.

Asplund, Richard W., *Profiting from Clean Energy.* Hoboken, NJ: Wiley, 2008.

Ayers, Robert U., and Edward A. Ayers, *Crossing the Energy Divide: Moving from Fossil Fuel Dependence to a Clean-Energy Future.* Upper Saddle River, NJ: Wharton School Publishing, 2010.

Bass, Stephen, and D. B. Barry Dalal-Clayton, *Sustainable Development Strategies: A Resource Book.* London: James and James/Earthscan, 2002.

Bayon, Ricardo, Amanda Hawn, and Katherine Hamilton, *Voluntary Carbon Markets: An International Business Guide to What They Are and How They Work.* London: James and James/Earthscan, 2007.

Beard, T. Randolph, and Gabriel A. Lozada, *Economics, Entropy and the Environment: The Extraordinary Economics of Nicholas Georgesçu-Roegen.* Cheltenham, UK: Edward Elgar, 1999.

Bodansky, David, *Nuclear Energy: Principles, Practices, and Prospects,* 2d ed. New York: Springer, 2004.

Brune, Michael, *Coming Clean: America's Addiction to Oil and Coal.* San Francisco: Sierra Club Books, 2008.

Carraro, Carlo, and Domenico Siniscalco, *The European Carbon Tax: An Economic Assessment.* New York: Springer, 1993.

Coming Global Oil Crisis, Hubbert Peak of Oil Production, 2009. http://www.hubbertpeak.com

Cravens, Gwyneth, *Power to Save the World: The Truth about Nuclear Energy.* New York: Knopf, 2007.

Earley, Jane, and Alice McKeown, *Red, White, and Green: Transforming U.S. Biofuels.* Washington, DC: Worldwatch Institute, 2009.

EcoBusiness Links, Carbon Emissions Offsets directory. www.ecobusinesslinks

Freeman, Jody, and Charles D. Kolstad, eds., *Moving to Markets in Environmental Regulation: Lessons from Twenty Years of Experience.* New York: Oxford University Press, 2007.

Freese, Barbara, *Coal: A Human History.* Cambridge, MA: Perseus, 2003.

Fuhs, Allen, *Hybrid Vehicles and the Future of Personal Transportation.* Boca Raton, FL: CRC Press, 2009.

Galambos, Louis, Takashi Hikino, and Vera Zamagni, *The Global Chemical Industry in the Age of the Petrochemical Revolution.* Cambridge, UK: Cambridge University Press, 2006.

Garwin, Richard L., and Georges Charpak, *Megawatts and Megatons: The Future of Nuclear Power and Nuclear Weapons.* Chicago: University of Chicago Press, 2002.

Gipe, Paul, *Wind Energy Comes of Age.* New York: Wiley, 1995.

Greenberg, Michael R., et al., *The Reporter's Handbook on Nuclear Materials, Energy, and Waste Management.* Nashville, TN: Vanderbilt University Press, 2009.

Hansjürgens, Bernd, *Emissions Trading for Climate Policy: US and European Perspectives.* Cambridge, UK: Cambridge University Press, 2005.

Heinberg, Richard, *Blackout: Coal, Climate, and the Last Energy Crisis.* Gabriola Island, BC: New Society Publishers, 2009.

Hills, Richard Leslie, *Power from Wind: A History of Windmill Technology.* Cambridge, UK: Cambridge University Press, 1994.

Hore-Lacy, Ian, *Nuclear Energy in the 21st Century.* Burlington, MA: Academic Press, 2006.

Inslee, Jay, and Bracken Hendricks, *Apollo's Fire: Igniting America's Clean-Energy Economy.* Washington, DC: Island Press, 2008.

International Emissions Trading Association, www.ieta.org/ieta/www/pages/index.php

Jensen, Derrick, and Stephanie McMillan. *As the World Burns; 50 Simple Things You Can Do to Stay in Denial, A Graphic Novel.* New York: Seven Stories Press, 2007.

Jong, Cyriel de, and Kasper Walet, eds., *A Guide to Emissions Trading: Risk Management and Business Implications.* London: Risk Books, 2004.

Marzotto, Toni, Vicky Moshier, and Gordon Scott Bonham, *The Evolution of Public Policy: Cars and the Environment.* Boulder, CO: Lynne Rienner, 2000.

McMonagle, Robert J., *Caribou and Conoco: Rethinking Environmental Politics in Alaska's ANWR and Beyond.* Lanham, MD: Rowman & Littlefield, 2008.

McQuaig, Linda, *It's the Crude, Dude: War, Big Oil, and the Fight for the Planet,* rev. ed. Toronto: Anchor Canada, 2005.

Miller, Bruce G., *Coal Energy Systems.* San Diego, CA: Elsevier Academic Press, 2005.

Miller, Norman, ed., *Cases in Environmental Politics: Stakeholders, Interests, and Policymakers.* New York: Routledge, 2009.

Muller, Richard, *Physics for Future Presidents: The Science Behind the Headlines.* New York: Wiley, 2008.

Murray, Raymond L., *Nuclear Energy: An Introduction to the Concepts, Systems, and Applications of Nuclear Processes,* 6th ed. Burlington, MA: Butterworth-Heinemann, 2008.

National Biodiesel Board, http://www.biodiesel.org/markets/mar

National Renewable Energy Laboratory. Advanced Vehicles and Fuels Research, www.nrel.gov/vehiclesandfuels

Odum, Howard T., and Elisabeth C. Odum, *A Prosperous Way Down: Principles and Policies.* Boulder: University Press of Colorado, 2001.

Pahl, Greg, *Biodiesel: Growing a New Energy Economy,* 2d ed. Burlington, VT: Chelsea Green, 2008.

Park, Patricia D., *Energy Law and the Environment.* Boca Raton, FL: CRC Press, 2002.

Pasqualetti, Martin J, Paul Gipe, and Robert Righter, *Wind Power in View: Energy Landscapes in a Crowded World.* St. Louis, MO: Elsevier, 2002.

Patel, Mukund R., *Wind and Solar Power Systems.* Boca Raton, FL: CRC Press, 1999.

Pimentel, David, ed., *Biofuels, Solar, and Wind as Renewable Energy Systems: Benefits and Risks.* New York: Springer, 2008.

Savinar, Matt, Life After the Oil Crash. http://www.lifeaftertheoil crash.net

Scheer, Hermann, *A Solar Manifesto.* London: James and James/Earthscan, 2005.

Simon, Christopher A., *Alternative Energy: Political, Economic, and Social Feasibility.* Lanham, MD: Rowman & Littlefield, 2007.

Smith, Kevin, *The Carbon Neutral Myth: Offset Indulgences for Your Climate Sins.* Amsterdam: Transnational Institute, 2007.

Standlea, David M., *Oil, Globalization, and the War for the Arctic Refuge.* New York: SUNY Press, 2006.

Truett, Joe C., and Stephen R. Johnson, *The Natural History of an Arctic Oil Field.* London: Elsevier, 2000.

Union of Concerned Scientists, Wind Power: Clean, Sustainable, and Affordable, www.ucsusa.org/clean_energy/coalvswind/index.html.

U.S. Department of the Interior, Wind Energy Development Programmatic EIS Information Center, windeis.anl.gov

Vanderbosch, Robert, and Susanna Vanderbosch, *Nuclear Waste Stalemate: Political and Scientific Controversies.* Salt Lake City: University of Utah Press, 2007.

Wells, Peter E., and Paul Nieuwenhuis, *The Automotive Industry and the Environment: A Technical, Business and Social Future.* Boca Raton, FL: CRC Press, 2003.

Wind Power: Environmental and Safety Issues, Wind Energy Fact Sheet 4. www.dti.gov.uk/files/file17777.pdf

Environment

Akinbami, Lara J., *The State of Childhood Asthma in the United States, 1980–2005.* Hyattsville, MD: U.S. Department of Health and Human Services, 2006.

Alverson, William Surprison, Walter Kuhlmann, and Donald M. Waller, *Wild Forests: Conservation Biology and Public Policy.* Washington, DC: Island Press, 1994.

An Inconvenient Truth. Documentary. Directed by David Guggenheim, 2006.

Anderson, J. L., *Industrializing the Corn Belt: Agriculture, Technology, and Environment, 1945–1972.* DeKalb: Northern Illinois University Press, 2008.

Archer, David, *The Climate Crisis: An Introductory Guide to Climate Change.* New York: Cambridge University Press, 2010.

Babbitt, Bruce, *Cities in the Wilderness: A New Vision of Land Use in America.* Washington, DC: Island Press, 2005.

Barrow, Mark V., Jr., *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology.* Chicago: University of Chicago Press, 2009.

Bas, Ed, *Indoor Air Quality.* New York: Marcel Dekker, 2004.

Behan, Richard W., *Plundered Promise: Capitalism, Politics, and the Fate of the Federal Lands.* Washington, DC: Island Press, 2001.

Bellamy, John Foster, Frederick Butell, and Fred Magdoff, *Hungry for Profit: The Agribusiness Threat to Farmers, Food, and the Environment.* New York: Monthly Review Press, 2000.

Beres, Samantha, *Pesticides: Critical Thinking about Environmental Issues.* Farmington Hills, MI: Greenhaven Press, 2002.

Berger, John J., *Forests Forever: Their Ecology, Restoration, and Protection.* Chicago: Center for American Places, 2008.

Bernard, Ted, *Hope and Hard Times: Communities, Collaboration, and Sustainability.* Gabriola Island, BC: New Society Publishers, 2010.

Bernstein, I. Leonard, *Asthma in the Workplace.* New York: Marcel Dekker, 1999.

Best, Gerry, *Environmental Pollution Studies.* Liverpool, UK: Liverpool University Press, 2000.

Bowersox, Joe, *The Moral Austerity of Environmental Decision Making.* Durham, NC: Duke University Press, 2002.

Brimblecombe, Peter, *Acid Rain: Deposition to Recovery.* Dordrecht: Springer, 2007.

Broecker, William S., and Robert Kunzig, *Fixing Climate: What Past Climate Changes Reveal about the Current Threat—and How to Counter It.* New York: Hill & Wang, 2008.

Buckley, Ralf, Catherine Pickering, and David Bruce Weaver, *Nature-Based Tourism, Environment and Land Management.* London: CABI Publishing, 2003.

Bullard, Robert D., ed., *Growing Smarter: Achieving Livable Communities, Environmental Justice, and Regional Equity.* Cambridge, MA: MIT Press, 2007.

Burns, Shirley Stewart, *Bringing Down the Mountains: The Impact of Mountaintop Removal Surface Coal Mining on West Virginia Communities, 1970–2004.* Morgantown: West Virginia University Press, 2007.

Casas, José S., and José Sordo, eds., *Lead: Chemistry, Analytical Aspects, Environmental Impact, and Health Effects.* Boston: Elsevier, 2006.

Cherni, Judith A., *Economic Growth versus the Environment: The Politics of Wealth, Health, and Air Pollution.* London: Palgrave Macmillan, 2002.

Clowney, David, and Patricia Mosto, *Earthcare: An Anthology of Environmental Ethics.* Lanham, MD: Rowman & Littlefield, 2009.

Collin, Robert W., *The U.S. Environmental Protection Agency: Cleaning Up America's Act.* Westport, CT: Greenwood Press, 2006.

Condon, Condon M. et al., *Urban Planning Tools for Climate Change Mitigation.* Lincoln, NE: Institute of Land Policy, 2009.

Cox, John D., *Climate Crash: Abrupt Climate Change and What It Means for Our Future.* Washington, DC: Joseph Henry Press, 2005.

Cox, Thomas R., *The Lumberman's Frontier: Three Centuries of Land Use, Society, and Change in America's Forests.* Corvalis: Oregon State University Press, 2010.

Crow, Peter, *Do, Die, or Get Along: A Tale of Two Appalachian Towns.* Athens: University of Georgia Press, 2007.

Crowder, Ad'aele A., Earle A. Ripley, and Robert E. Redmann, *Environmental Effects of Mining.* Singapore: CRC Press, 1996.

Davis, Charles, ed., *Western Public Lands and Environmental Politics.* Boulder, CO: Westview Press, 2001.

Dernbach, John C., ed., *Agenda for a Sustainable America.* Washington, DC: Environmental Law Institute, 2009.

Dhir, Ravindra, Thomas D. Dyer, and Kevin A. Paine, eds., *Sustainable Construction: Use of Incinerator Ash;* London: Thomas Telford Publishing, 2000.

Dietz, Thomas, and Paul C. Stern, eds., *Public Participation in Environmental Assessment and Decision Making.* Washington, DC: National Academies Press, 2008.

DiMento, Joseph F. C., and Pamela Doughman, eds., *Climate Change: What It Means for Us, Our Children, and Our Grandchildren.* Cambridge, MA: MIT Press, 2007.

Dow, Kirstin, and Thomas E. Downing, *The Atlas of Climate Change: Mapping the World's Greatest Challenge.* Berkeley: University of California Press, 2007.

Downie, David, *Northern Lights against POPs: Toxic Threats in the Arctic.* Montreal: McGill-Queen's Press, 2002.

Ellerman, A. Denny, et al., *Markets for Clean Air: The U.S. Acid Rain Program.* New York: Cambridge University Press, 2000.

Endangered and Extinct Species Lists, eelink.net/EndSpp.old.bak/ES.lists.html

Environmental Defense Fund, www.edf.org/home.cfm

Faber, Daniel, *Capitalizing on Environmental Injustice: The Polluter-Industrial Complex in the Age of Globalization.* Lanham, MD: Rowman & Littlefield, 2008.

Fagan, Brian M., *The Great Warming: Climate Change and the Rise and Fall of Civilizations.* New York: Bloomsbury Press, 2008.

Fiedler, H., ed., *Persistent Organic Pollutants.* New York: Springer 2003.

Flannery, Tim, *The Weather Makers: How We Are Changing the Climate and What It Means for Life on Earth.* Toronto: HarperCollins, 2006.

Flint, Anthony, *This Land: The Battle over Sprawl and the Future of America.* Baltimore: Johns Hopkins University Press, 2006.

Fretwell, Holly Lipke, *Who Is Minding the Federal Estate? Political Management of America's Public Lands.* Lanham, MD: Lexington Books, 2009.

Genske, Dieter D., *Investigation, Remediation, and Protection of Land Resources.* Dunbeath, UK: Whittles, 2007.

Glasson, John, et al., *Introduction to Environmental Impact Assessment,* 3d ed. New York: Routledge, 2005.

Gliessman, Stephen R., *Agroecology: The Ecology of Sustainable Food Systems,* 2d ed. Singapore: CRC Press, 2006.

Goble, Dale D., J. Michael Scott, and Frank W. Davis, eds., *The Endangered Species Act at Thirty.* Washington, DC: Island Press, 2006.

Gonzales, George A., *Urban Sprawl, Global Warming, and the Empire of Capital.* Albany: State University of New York Press, 2009.

Hanna, Kevin, *Environmental Impact Assessment: Practice and Participation,* 2d ed. New York: Oxford University Press, 2009.

Hansen, James E., *Storms of My Grandchildren: The Truth about the Coming Climate Catastrophe and Our Last Chance to Save Humanity.* New York: Bloomsbury Press, 2009.

Hanson, Larry G., and Larry W. Robertson, *PCBs: Human and Environmental Disposition and Toxicology.* Urbana: University of Illinois Press, 2008.

Harrad, Stuart, *Persistent Organic Pollutants: Environmental Behaviour and Pathways of Human Exposure.* New York: Springer, 2001.

Harrap, D., *Air Quality Assessment and Management.* London: Spon Press, 2002.

Harris, Jonathan M. *A Survey of Sustainable Development: Social and Economic Dimensions.* Washington, DC: Island Press, 2001.

Hartman, Howard L., and Jan M. Mutmansky, *Introductory Mining Engineering.* New York: Wiley, 2002.

Hayden, Dolores, *A Field Guide to Sprawl.* New York: Norton, 2004.

Helmer, Richard, *Water Pollution Control.* London: Spon Press, 1998.

Hirt, Paul W., *A Conspiracy of Optimism: Management of the National Forests since World War Two.* Lincoln: University of Nebraska Press, 1994.

Hollander, Justin B., *Polluted and Dangerous: America's Worst Abandoned Properties and What Can Be Done about Them.* Burlington: University of Vermont Press, 2009.

Holly, Hattemer-Frey, Janos Szollosi, Lajos Tron, et al., eds., *Health Effects of Municipal Waste Incineration.* Boca Raton, FL: CRC Press, 1991.

Houghton, J. T., *Global Warming: The Complete Briefing.* New York: Cambridge University Press, 2009.

Hulme, Michael, *Why We Disagree about Climate Change: Understanding Controversy, Inaction and Opportunity.* New York: Cambridge University Press, 2009.

Institute of Medicine, *Clearing the Air: Asthma and Indoor Air Exposures.* Washington, DC: National Academies Press, 2000.

Jansen, Kees, and Sietze Velleme, *Agribusiness and Society: Corporate Responses to Environmentalism, Market Opportunities, and Public Regulation.* London: Zed Books, 2004.

Johansen, Bruce Elliott, *The Dirty Dozen: Toxic Chemicals and the Earth's Future.* Westport, CT: Praeger, 2003.

Kabat, Geoffrey C., *Hyping Health Risks: Environmental Hazards in Daily Life and the Science of Epidemiology.* New York: Columbia University Press, 2008.

Keiter, Robert B., *Keeping Faith with Nature: Ecosystems, Democracy, and America's Public Lands.* New Haven, CT: Yale University Press, 2003.

Kimbrell, Andrew, *Fatal Harvest: The Tragedy of Industrial Agriculture.* Sausalito, CA: Foundation for Deep Ecology and Island Press, 2002.

Kinnaman, Thomas C., ed., *The Economics of Residential Solid Waste Management.* Burlington, VT: Ashgate, 2003.

Knott, Catherine Henshaw, *Living with the Adirondack Forest: Local Perspectives on Land Use Conflicts.* Ithaca, NY: Cornell University Press, 1998.

Lawrence, David Peter, *Environmental Impact Assessment: Practical Solutions to Recurrent Problems.* Hoboken, NJ: Wiley, 2003.

LeCain, Timothy, *Mass Destruction: The Men and Giant Mines That Wired America and Scarred the Planet.* New Brunswick, NJ: Rutgers University Press, 2009.

Levine, Marvin J., *Pesticides: A Toxic Time Bomb in Our Midst.* Westport, CT: Praeger, 2007.

Lipfert, Frederick W., *Air Pollution and Community Health.* New York: Wiley, 1994.

Lowry, William R., *Repairing Paradise: The Restoration of America's National Parks.* Washington, DC: Brookings Institution Press, 2009.

MacDonald, Samuel A., *The Agony of an American Wilderness: Loggers, Environmentalists, and the Struggle for Control of a Forgotten Forest.* Lanham, MD: Rowman & Littlefield, 2005.

Macey, Gregg P., and Jonathan Z. Cannon, *Reclaiming the Land: Rethinking Superfund Institutions, Methods, and Practices.* New York: Springer, 2007.

Machlis, Gary E., and Donald R. Field, *National Parks and Rural Development: Practice and Policy in the United States.* Washington, DC: Island Press, 2000.

Maehr, David S., et al., eds., *Large Mammal Restoration: Ecological and Sociological Consideration in the 21st Century.* Washington, DC: Island Press, 2001.

Maser, Chris, *Ecological Diversity in Sustainable Development: The Vital and Forgotten Dimension.* New York: Lewis Publishers, 1999.

Mastney, Lisa, and Sandra Postel, *Liquid Assets: The Critical Need to Safeguard Freshwater Ecosystems.* Washington, DC: Worldwatch Institute, 2005.

Matthews, Graham A., *Pesticides: Health, Safety and the Environment.* Oxford: Blackwell Publishing, 2006.

Mazmanian, Daniel A., and Michael E. Kraft, eds., *Towards Sustainable Communities,* 2d ed. Cambridge, MA: MIT Press, 2009.

McKibben, Bill, *Eaarth: Making a Life on a Tough New Planet.* New York: Times Books, 2010.

Mehmetli, Ebru, and Bogdana Koumanova, *The Fate of Persistent Organic Pollutants.* Dordecht: Springer Science/Business Media, 2007.

Melosi, Martin V., *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present,* abridged ed. Pittsburgh: University of Pittsburgh Press, 2008.

Millstone, Erik, *Lead and Public Health: The Dangers for Children.* Washington, DC: Taylor and Francis, 1997.

Monbiot, George, *Heat: How to Stop the Planet from Burning.* Toronto: Random House, 2006.

Moore, Colleen F., *Silent Scourge: Children, Pollution, and Why Scientists Disagree.* New York: Oxford University Press, 2003.

Morandi, Larry, Barbara Foster, and Jeff Dale, *Watershed Protection: The Legislative Role.* Washington, DC: National Conference of State Governors, 1998.

Moussiopoulos, Nicolas, ed., *Air Quality in Cities.* New York: Springer, 2003.

Nash, Linda Lorraine, *Inescapable Ecologies: A History of Environment, Disease, and Knowledge.* Berkeley: University of California Press, 2007.

Naspitz, Charles K., *Pediatric Asthma: An International Perspective.* London: Taylor and Francis, 2001.

Nathanail, C. Paul, and R. Paul Bardos, *Reclamation of Contaminated Land.* New York: Wiley, 2004.

National Research Council, *Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope.* Washington, DC: National Academies Press, 2003.

National Park Service Concession Program, www.concessions.nps.gov

National Park Service Concessions Assessment, www.whitehouse.gov/OMB/ expectmore/detail.10003716.2005.html

National Parks Conservation Association, www.npca.org

Natural Resources Defense Council, Issues: Water, www.nrdc.org/water/pollution/default.asp

Nelson, Robert H., *Public Lands and Private Rights: The Failure of Scientific Management.* Lanham, MD: Rowman & Littlefield, 1995.

Niessen, Walter R., *Combustion and Incineration Processes: Applications in Environmental Engineering.* New York: Marcel Dekker, 2002.

Noble, Bram F., *Introduction to Environmental Impact Assessment: A Guide to Principles and Practice,* 2d ed. New York: Oxford University Press, 2010.

Norden, Bengt, *Interaction Mechanisms of Low-Level Electromagnetic Fields in Living Systems.* Oxford: Oxford University Press, 1992.

O'Brien, Bob R., *Our National Parks and the Search for Sustainability.* Austin: University of Texas Press, 1999.

O'Toole, Randal, *A Libertarian View of Urban Sprawl.* Cato Institute. March 18, 2010. http://www.cato-at-liberty.org/2010/03/18/a-libertarian-view-of-urban-sprawl

Office of Protected Resources, Species under the Endangered Species Act (ESA), www.nmfs.noaa.gov/pr/species/esa

Oreskes, Naomi, and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco to Global Warming.* New York: Bloomsbury Press, 2010.

Owens, Susan E., and Richard Cowell, *Land and Limits: Interpreting Sustainability in the Planning Process.* New York: Routledge, 2002.

Pagenkopf, James R., et al., *Municipal Waste-water Treatment.* New York: Wiley, 2002.

Public Lands Foundation, www.publicland.org

Public Lands Information Center, www.publiclands.org/home.php?SID=/

Rajala, Richard A., *Clearcutting the Pacific Rain Forest: Production, Science, and Regulation.* Vancouver: University of British Columbia Press, 1998.

Randolph, John, *Environmental Land Use Planning and Management.* Washington, DC: Island Press, 2004.

Rao, P. K., *Sustainable Development.* Oxford: Blackwell, 2000.

Rathje, William, and Cullen Murphy, *Rubbish! The Archaeology of Garbage.* New York: HarperCollins, 1992.

Rhodes, Eduardo Lao, *Environmental Justice in America: A New Paradigm.* Bloomington: Indiana University Press, 2003.

Riddell, Robert, *Sustainable Urban Planning: Tipping the Balance.* Oxford: Blackwell, 2004.

Roadless Area Conservation, www.roadless.fs.fed.us

Russ, Thomas H., *Redeveloping Brownfields: Landscape Architects, Planners, Developers.* New York: McGraw-Hill, 1999.

Sabatier, Paul A., *Swimming Upstream: Collaborative Approaches to Watershed Management.* Cambridge, MA: MIT Press, 2005.

Sanderson, James, and Larry D. Harris, eds., *Landscape Ecology: A Top-Down Approach.* Boca Raton, FL: Lewis Publishers, 2000.

Scanlan, John, *On Garbage.* London: Reaktion Books, 2005.

Schrader-Freschette, K. S., *Environmental Justice: Creating Equality, Reclaiming Democracy.* New York: Oxford University Press, 2002.

Schwartz, Joel, *Air Quality in America.* Washington, DC: AEI Press, 2007.

Shevory, Thomas C., *Toxic Burn: The Grassroots Struggle against the WTI Incinerator.* Minneapolis: University of Minnesota Press, 2007.

Shogren, Jason F., and John Tschirhart, eds., *Protecting Endangered Species in the United States: Biological Needs, Political Realities, Economic Choices.* New York: Cambridge University Press, 2008.

Sigman, Hillary, ed., *The Economics of Hazardous Waste and Contaminated Land.* Northampton, MA: Edward Elgar, 2008.

Simioni, Daniela, *Air Pollution and Citizen Awareness.* New York: United Nations Publications, 2004.

Smith, Douglas, and Gary Ferguson, *Decade of the Wolf: Returning the Wild to Yellowstone.* Guilford, CT: Lyons Press, 2005.

Social Learning Group, *A Comparative History of Social Responses to Climate Change, Ozone Depletion, and Acid Rain.* Cambridge, MA: MIT Press, 2001.

Social Learning Group, *Learning to Manage Global Environmental Risks.* Cambridge, MA: MIT Press, 2001.

Soule, David C. ed., *Remaking American Cities: A Reference Guide to Urban Sprawl.* Lincoln: University of Nebraska Press, 2007.

Sources of Water Pollution, www.soest.hawaii.edu/GG/ASK/waterpol3.html

Spellman, Frank R., *The Science of Water: Concepts and Applications.* Boca Raton, FL: CRC Press, 2008.

Spellman, Frank R., and Nancy E. Whiting, *Environmental Management of Concentrated Animal Feeding Operations (CAFOs).* Singapore: CRC Press, 2007.

Strasser, Susan. *Waste and Want: A Social History of Trash.* New York: Owl Books, 2000.

Sullivan, Patrick J., Franklin J. Argady, and James J. J. Clark, *The Environmental Science of Drinking Water.* Burlington, MA: Butterworth-Heinemann, 2005.

Tammemagi, Hans, *Air: Our Planet's Ailing Atmosphere.* Toronto: Oxford University Press, 2009.

Thomas, Vivian E., *Garbage In, Garbage Out: Solving the Problems with Long-Distance Trash Transport.* Charlottesville: University of Virginia Press, 2009.

Troesken, Werner, *The Great Lead Water Pipe Disaster.* Cambridge, MA: MIT Press, 2006.

U.S. Department of the Interior, Office of Surface Mining, Environmental Assessments, www.osmre.gov/pdf/streambufferea.pdf

U.S. Environmental Protection Agency, Monitoring and Assessing Water Quality: Volunteer Monitoring. www.epa.gov/owow/monitoring/vol.html

U.S. Environmental Protection Agency, Polluted Runoff (Nonpoint Source Pollution), www.epa.gov/nps

U.S. Environmental Protection Agency, Watersheds, www.epa.gov/owow/water shed

U.S. Fish & Wildlife Service, Endangered Species Program. June 2010. http://www.fws.gov/endangered/wildlife.html#Species

Urbiqkit, Cat, *Yellowstone Wolves: A Chronicle of the Animal, the People, and the Politics.* Blacksburg, VA: McDonald & Woodward, 2008.

Vaughn, Jacqueline, *Conflicts over Natural Resources: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Wargo, John, *Green Intelligence: Creating Environments that Protect Human Health.* New Haven, CT: Yale University Press, 2009.

Wilderness Society, www.wilderness.org

Wolch, Jennifer, Manual Pastor, and Peter Dreier, eds., *Up Against the Sprawl.* Minneapolis: University of Minnesota Press, 2004.

Health and Medicine

Albritton, Robert, *Let Them Eat Junk: How Capitalism Creates Hunger and Obesity.* New York: Pluto Press, 2009.

Allen, Arthur, *Vaccine: The Controversial Story of Medicine's Greatest Lifesaver.* New York: Norton, 2007.

American Medical Association, http://www.ama-assn.org

Angell, Marcia, *The Truth about the Drug Companies.* New York: Random House, 2004.

Barry, John M., *The Great Influenza: The Story of the Deadliest Pandemic in History.* New York: Penguin, 2004.

Barry, John, *The Great Influenza: The Epic Story of the Deadliest Plague in History.* New York: Viking, 2004.

Beauchamp, Tom L., and James F. Childress, *Principles of Biomedical Ethics,* 5th ed. New York: Oxford University Press, 2001.

Cantor, David, ed., *Cancer in the Twentieth Century.* Baltimore: Johns Hopkins University Press, 2008.

Cardello, Hank, with Doug Carr, *Stuffed: An Insider's Look at Who's (Really) Making America Fat.* New York: Ecco Press, 2009.

Centers for Disease Control, http://www.cdc.gov

Chapkis, Wendy, and Richard J. Webb, *Dying to Get High: Marijuana as Medicine.* New York: New York University Press, 2008.

Colgrove, James, *State of Immunity: The Politics of Vaccination in Twentieth-Century America.* Berkeley: University of California Press, 2006.

Devettere, Raymond J., *Practical Decision Making in Health Care Ethics,* 3d ed. Washington, DC: Georgetown University Press, 2010.

Devlin, Roni K., *Influenza.* Westport, CT: Greenwood Press, 2008.

Eaton, Margaret L., and Donald Kennedy, *Innovation in Medical Technology: Ethical Issues and Challenges.* Baltimore: Johns Hopkins University Press, 2007.

Entis, Phyllis, *Food Safety: Old Habits and New Perspectives.* Washington, DC: ASM Press, 2007.

Faquet, Guy B., *The War on Cancer: An Anatomy of Failure, a Blueprint for the Future.* Dordrecht: Springer, 2005.

Finkelstein, Eric, *The Fattening of America: How the Economy Makes Us Fat, If It Matters, and What to Do about It.* Hoboken, NJ: Wiley, 2008.

Fortin, Neal D., *Food Regulation: Law, Science, Policy, and Practice.* New York: Wiley, 2009.

Fox, Nicols, *Spoiled: The Dangerous Truth About a Food Chain Gone Haywire.* New York: Basic Books, 1997.

Garrett, Laurie, *The Coming Plague: Newly Emerging Diseases in a World Out of Balance.* New York: Penguin, 1995.

Glassner, Barry, *The Culture of Fear: Why Americans Are Afraid of the Wrong Things.* New York: Basic Books, 1999

Gregor, Michael, *Bird Flu: A Virus of Our Own Hatching.* New York: Lantern Books, 2006.

Halpern, S. A., *Lesser Harms: The Morality of Risk in Medical Research.* Chicago: University of Chicago Press, 2004.

Hayman, Laura L., ed., *Chronic Illness in Children: An Evidence-Based Approach.* New York: Springer, 2002.

Hester, R. E., and Roy M. Harrison, *Endocrine Disrupting Chemicals.* London: Royal Society of Chemists, 1999.

Illingworth, Patricia, *Ethical Health Care.* Upper Saddle River, NJ: Pearson/Prentice Hall, 2006.

Imber, Jonathan B., *Trusting Doctors: The Decline of Moral Authority in American Medicine* Princeton, NJ: Princeton University Press, 2008.

Jakobsen, Janet, and Ann Pellegrini, *Love the Sin: Sexual Regulation and the Limits of Religious Tolerance.* Boston: Beacon Press, 2004.

Jones, J. H, *Bad Blood: The Tuskegee Syphilis Experiment.* New York: Free Press, 1981.

Jongen, Wim, ed., *Improving the Safety of Fresh Fruit and Vegetables.* Boca Raton, FL: CRC Press, 2005.

Khoury, M. J., and J. Morris, *Pharmacogenomics and Public Health: The Promise of Targeted Disease Prevention.* Atlanta: Centers for Disease Control and Prevention, 2001.

Laumann, Edward, et al., *The Social Organization of Sexuality: Sexual Practices in the United States.* Chicago: University of Chicago Press, 1994.

Levy, Elinor, and Mark Fischetti, *The New Killer Diseases: How the Alarming Evolution of Germs Threatens Us All.* New York: Three Rivers Press, 2004.

Loughlin, Kevin, et al., eds., *The Guide to Off-Label Prescription Drugs: New Uses for FDA-Approved Prescription Drugs.* New York: Free Press, 2006.

Melia, Kath M., *Health Care Ethics: Lessons from Intensive Care.* Thousand Oaks, CA: Sage, 2004.

Nass, S., and H. L. Moses, eds., *Cancer Biomarkers: The Promises and Challenges of Improving Detection and Treatment.* Washington, DC: National Academies Press, 2007.

National Cancer Institute, http://www.cancer.gov

Nestle, Marion, *Safe Food: Bacteria, Biotechnology, and Bioterrorism.* Berkeley: University of California Press, 2003.

Norris, David O., and James A. Carr, *Endocrine Disruption: Biological Basis for Health Effects in Wildlife and Humans.* New York: Oxford University Press, 2006.

Patton, Cindy, *Fatal Advice: How Safe-Sex Education Went Wrong.* Durham, NC: Duke University Press, 1996.

Pennington, T. Hugh, *When Food Kills: BSE, E. Coli, and Disaster Science.* New York: Oxford University Press, 2003.

Peters, C. J., and Mark Olshaker, *Virus Hunter: Thirty Years of Battling Hot Viruses around the World.* New York: Anchor Books, 1997.

Pisani, Elizabeth, *The Wisdom of Whores: Bureaucrats, Brothels, and the Business of AIDS.* New York: Norton, 2009.

Pray, Leslie, et al., *Managing Food Safety Practices from Farm to Table.* Washington, DC: National Academies Press, 2009.

Redman, Nina E., *Food Safety: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2007.

Schumann, Michael S., et al., *Food Safety Law.* New York: Van Nostrand Reinhold, 1997.

Steingraber, Sandra, *Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment.* New York: Vintage Books, 1998.

Stern, Judith S., *Obesity: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2009.

UNAIDS, Global Facts and Figures. 2009. http://data.unaids.org/pub/FactSheet/2009/20091124_FS_global_en.pdf

U.S. Department of Health and Human Services, HIV/AIDS, http://www.aids.gov

Whiteside, Alan, *HIV/AIDS: A Very Short Introduction.* New York: Oxford University Press, 2008.

World Health Organization, http://www.who.int/en.

World Health Organization, "Obesity and Overweight." http://www.who.int/dietphysicalactivity/publications/facts/obesity/en

Science and Ethics

Bellomo, Michael, *The Stem Cell Divide: The Facts, the Fiction, and the Fear Driving the Greatest Scientific, Political, and Religious Debate of Our Time.* New York: AMACOM, 2006.

Botzler, Richard George, *The Animal Ethics Reader.* London: Routledge, 2003.

Brody, Howard, *The Future of Bioethics.* New York: Oxford University Press, 2010.

Carbone, Larry, *What Animals Want: Expertise and Advocacy in Laboratory Animal Welfare Policy.* New York: Oxford University Press, 2004.

Collins, Francis S., *The Language of Life: DNA and the Revolution in Personalized Medicine.* New York: Harper, 2010.

Curry, Lynne, *The Human Body on Trial: A Handbook with Cases, Laws, and Documents.* Santa Barbara, CA: ABC-CLIO, 2002.

Daniels, N., A. Buchanan, D. Brock, and D. Wikler, *From Chance to Choice: Genes and Social Justice.* Cambridge, UK: Cambridge University Press, 2000.

Davis, Devra Lee, *The Secret History of the War on Cancer.* New York: Basic Books, 2007.

Duster, Troy, *Backdoor to Eugenics.* New York: Routledge, 1990.

Faden, R. R., and T. L. Beauchamp, *A History and Theory of Informed Consent.* New York: Oxford University Press, 1986.

Fausto-Sterling, Anne, *Sexing the Body.* New York: Basic Books, 2000);

Forrest, Derek Williams, *Francis Galton: The Life and Work of a Victorian Genius.* New York: Taplinger, 1974.

Fox, Cynthia, *Cell of Cells: The Global Race to Capture and Control the Stem Cell.* New York: Norton, 2007.

Fritz, Sandy, ed., *Understanding Cloning.* New York: Warner Books, 2002.

Garner, Robert, *Animals, Politics, and Morality.* Manchester, UK: Manchester University Press, 2004.

Genetic Engineering & Biotechnology News, http://www.genengnews.com

Gillette, Aaron, *Eugenics and the Nature-Nurture Debate in the Twentieth Century.* New York: Palgrave Macmillan, 2007.

Gluck, John P., Tony DiPasquale, and Barbara F. Orlans, *Applied Ethics in Animal Research: Philosophy, Regulation and Laboratory Applications.* Ames, IA: Purdue University Press, 2002.

Gould, Stephen Jay, *The Mismeasure of Man.* New York: Norton, 1981.

Haugen, David M., et al., eds., *The Ethics of Cloning.* Detroit: Greenhaven Press, 2008.

Holland, Suzanne, Karen Lebacqz, and Laurie Zoloth, eds., *The Human Embryonic Stem Cell Debate: Science, Ethics, and Public Policy.* Cambridge, MA: MIT Press, 2001.

Hubbard, Ruth, and Elijh Wald, *Exploding the Gene Myth: How Genetic Information Is Produced and Manipulated by Scientists, Physicians, Employers, Insurance Companies, Educators, and Law Enforcers.* Boston: Beacon Press, 1999.

Human Genome Project, http://genome.gsc.riken.go.jp/hgmis/project/hgp.html

Kerr, Anne, and Tom Shakespeare, *Genetic Politics: From Eugenics to Genome.* Cheltenham, UK: New Clarion Press, 2002.

Kevles, Daniel J., *In the Name of Eugenics: Genetics and the Uses of Human Heredity.* New York: Knopf, 1985.

Klotzko, Arlene Judith, *A Clone of Your Own? The Science and Ethics of Cloning.* New York: Cambridge University Press, 2006.

Kluchin, Rebecca M., *Fit to Be Tied: Sterilization and Reproductive Rights in America, 1950–1980.* New Brunswick, NJ: Rutgers University Press, 2009.

Knowles, Lori P., and Gregory E. Kaebnick, *Reprogenetics: Law, Policy, Ethical Issues.* Baltimore: Johns Hopkins University Press, 2007.

Lewontin, R. C., Steven Rose, and Leon J. Kamin, *Not in Our Genes: Biology, Ideology, and Human Nature.* New York: Pantheon, 1984.

Moore, David S. *The Dependent Gene: The Fallacy of "Nature vs. Nurture."* New York: Henry Holt, 2002.

Moran, Lisa C., *Science, Medicine, and Animals.* Washington, DC: National Academies Press, 2005.

Olmsted, Alan L., *Creating Abundance: Biological Innovation and American Agricultural Development.* New York: Cambridge University Press, 2008.

Parens, Erik, et al., eds., *Wrestling with Behavioral Genetics: Science, Ethics, and Public Conversation.* Baltimore: Johns Hopkins University Press, 2006.

Petryna, Adriana, *When Experiments Travel: Clinical Trials and the Global Search for Subjects.* Princeton, NJ: Princeton University Press, 2009.

The President's Council on Bioethics, http://www.bioethics.gov/reports

Regan, Tom, *Defending Animal Rights.* Chicago: University of Illinois Press, 2001.

Ridley, Matt, *Nature via Nurture: Genes, Experience, and What Makes Us Human.* New York: HarperCollins, 2003.

Rubenfeld, Sheldon, ed., *Medicine after the Holocaust: From the Master Race to the Human Genome Project.* New York: Palgrave Macmillan, 2010.

Rudacille, Deborah, *The Scalpel and the Butterfly: The Conflict between Animal Research and Animal Protection.* Berkeley: University of California Press, 2001.

Ruse, Michael, and Christopher A. Pynes, eds., *The Stem Cell Controversy: Debating the Issues,* 2d ed. New York: Prometheus Books, 2006.

Schaller, Barry R., *Understanding Bioethics and the Law: The Promise and Perils of the Brave New World of Biotechnology.* Westport, CT: Praeger, 2008.

Scott, F. Gilbert, and David Epel, *Ecological Developmental Biology.* Sunderland, MA: Sinauer Associates, 2009.

Shah, S., *The Body Hunters: How the Drug Industry Tests Its Products on the World's Poorest Patients.* New York: New Press, 2006.

Shmaefsky, Brian, *Biotechnology 101.* Westport, CT: Greenwood Press, 2006.

Stober, Spencer S., and Donna Yarri, *God, Science, and Designer Genes: An Exploration of Emerging Genetic Technologies.* Westport, CT: Praeger, 2009.

U.S. National Institutes of Health, Understanding Clinical Trials. 2007. http://clinicaltrials.gov/ct2/info/understand

Waters, Brent, and Ronald Cole-Turner, *God and Embryo.* Washington, DC: Georgetown University Press, 2003.

Wilson, E. O., *Sociobiology: The New Synthesis,* 25th anniversary ed. Cambridge, MA: Belknap/Harvard University Press, 2000.

Wittcoff, Harold A., Jeffery S. Plotkin, and Bryan G. Reuben, *Industrial Organic Chemicals.* Hoboken, NJ: Wiley, 2004.

Wright, Lawrence, *Twins: And What They Tell Us about Who We Are.* New York: Wiley, 1997.

Technology

Alvarez, R. Michael, and Thad E. Hall, *Electronic Elections: The Perils and Promises of Digital Democracy.* Princeton, NJ: Princeton University Press, 2008.

American Association of State Highway and Transportation Officials (AASHTO), *Bridging the Gap.* July 2008. www.transportation1.org/bridgereport/front-page.html

American Society of Civil Engineers, *2009 Report Card for America's Infrastructure.* www.infrastructurereportcard.org/report-cards

Anderson, Janna Quitney, *Imagining the Internet: Personalities, Predictions, Perspectives.* Lanham, MD: Rowman & Littlefield, 2005.

Aspray, William, and Paul E. Ceruzzi, eds., *The Internet and American Business.* Cambridge, MA: MIT Press, 2008.

Association of State Dam Safety Officials, *State and Federal Oversight of Dam Safety Must Be Improved.* www.damsafety.org

Avise, John C., *The Hope, Hype and Reality of Genetic Engineering.* New York: Oxford University Press, 2004.

Bailey, Britt, and Marc Lappé, eds., *Engineering the Farm: Ethical and Social Aspects of Agricultural Biotechnology.* Washington, DC: Island Press, 2002.

Ball, Kirstie, and Frank Webster, eds., *The Intensification of Surveillance: Crime, Terrorism and Warfare in the Information Age.* Sterling, VA: Pluto Press, 2003.

Breazeal, Cynthia, *Designing Sociable Robots (Intelligent Robotics and Autonomous Agents).* Cambridge, MA: MIT Press, 2002.

Buckley, Peter, and Duncan Clark, *The Rough Guide to the Internet.* London: Penguin, 2007.

Chalk, Peter, *Hitting America's Soft Underbelly: The Potential Threat of Deliberate Biological Attacks Against the U.S. Agricultural and Food Industry.* Santa Monica, CA: Rand Corporation, 2004.

Charles, Daniel, *Lords of the Harvest: Biotech, Big Money, and the Future of Food.* Cambridge, MA: Perseus, 2001.

Chertoff, M., "Preserving infrastructure: A 21st Century Challenge." *Parameters* (Winter 2008): 5–13.

Cimbala, Stephen J., *Shield of Dreams: Missile Defense and U.S.-Russian Nuclear Strategy.* Annapolis, MD: Naval Institute Press, 2008.

Collins, Pamela A. and Ryan K. Baggett, *Homeland Security and Critical Infrastructure Protection.* Westport, CT: Praeger Security International, 2009.

De Jonge, Christopher, and Christopher L. R. Barratt, eds., *Assisted Reproduction Technology: Accomplishments and New Horizons.* Cambridge, UK: Cambridge University Press, 2002.

Edelstein, Sari, *Food and Nutrition at Risk in America: Food Insecurity, Biotechnology, Food Safety, and Bioterrorism.* Sudbury, MA: Jones & Bartlett, 2009.

Elias, Bartholomew, *Airport and Aviation Security: U.S. Policy and Strategy in the Age of Global Terrorism.* Boca Raton, FL: CRC Press, 2010.

Farren, Mick, and John Gibb, *Who's Watching You? The Truth about the State, Surveillance, and Personal Freedom.* New York: The Disinformation Company, 2007.

Forman, Richard T. T., *Road Ecology: Science and Solutions.* Washington, DC: Island Press, 2002.

Genetic Engineering & Biotechnology News, http://www.genengnews.com

Hier, Sean P., and Josh Greenberg, *Surveillance: Power, Problems, and Politics.* Vancouver: UBC Press, 2009.

Jackson, L., "We Must Do Something Now! Our Nation's Transportation Infrastructure Is Deteriorating." *Entrepreneur Magazine* (2009).

Kelderman, E., "Look Out Below! America's Infrastructure Is Crumbling." Stateline.org/Pew Research Center. January 22, 2008. http://pewresearch.org/pubs/699/look-out-below

Kloppenburg, Jack Ralph, Jr., *First the Seed: The Political Economy of Plant Biotechnology 1492–2000,* 2d ed. Madison: University of Wisconsin Press, 2005.

Kutz, Myer, ed., *Environmentally Conscious Transportation.* Hoboken, NJ: Wiley, 2008.

Lettow, Paul Voerbeck, *Ronald Reagan and His Quest to Abolish Nuclear Weapons.* New York: Random House, 2005.

LeVine, Harry, *Genetic Engineering: A Reference Handbook,* 2d ed. Santa Barbara, CA: ABC-CLIO, 2006.

McCabe, Linda L., and Edward R. B. McCabe, *DNA: Promise and Peril.* Berkeley: University of California Press, 2008.

McHughen, Alan, *Pandora's Picnic Basket—The Potential and Hazards of Genetically Modified Foods.* New York: Oxford University Press, 2000.

McNeil, J. B., *Building Infrastructure Resiliency: Private Sector Investment in Homeland Security.* Washington, DC: The Heritage Foundation, 2008.

Merrick, Janna C., *Reproductive Issues in America: A Reference Handbook.* Santa Barbara, CA: ABC-CLIO, 2003.

Monahan, Torin, *Surveillance in the Time of Insecurity.* New Brunswick, NJ: Rutgers University Press, 2010.

Mundy, Liza, *Everything Conceivable: How Assisted Reproduction Is Changing Men, Women, and the World.* New York: Knopf, 2007.

Naam, Ramez, *More Than Human: Embracing the Promise of Biological Enhancement.* New York: Broadway Books, 2005.

National Research Council Transportation Research Board, *Surface Transportation Environmental Research: A Long-Term Strategy.* Washington, DC: National Academies Press, 2002.

Negroponte, Nicholas, *Being Digital.* New York: Knopf, 1995.

Nestle, Marion, *Safe Food: Bacteria, Biotechnology, and Bioterrorism.* Berkeley: University of California Press, 2003.

Noble, David, *Forces of Production: A Social History of Industrial Automation.* New York: Oxford University Press, 1986.

O'Hanlon, Michael E., *Budgeting for Hard Power: Defense and Security Spending under Barack Obama.* Washington, DC: Brookings Institution Press, 2009.

Peoples, Columba, *Justifying Ballistic Missile Defense: Technology, Security, and Culture.* New York: Cambridge University Press, 2010.

Percy, Herma, *Will Your Vote Count? Fixing America's Broken Electoral System.* Westport, CT: Praeger, 2009.

Price, Jeffrey and J. Forrest, *Practical Aviation Security: Predicting and Preventing Future Threats.* Burlington, MA: Butterworth-Heinemann, 2009.

Reeves, Byron, and Clifford Nass, *The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places.* CSLI Lecture Notes. Stanford, CA: Center for the Study of Language and Information Publications, 2003.

Rietveld, Piet, and Roger R. Stough, *Barriers to Sustainable Transport: Institutions, Regulation and Sustainability.* New York: Spon Press, 2005.

Root, Amanda, *Delivering Sustainable Transport: A Social Science Perspective.* Boston: Pergamon, 2003.

Saltman, Roy G., *The History and Politics of Voting Technology: In Quest of Integrity and Public Confidence.* New York: Palgrave Macmillan, 2006.

Schacter, Bernice, *Issues and Dilemmas of Biotechnology: A Reference Guide.* Westport, CT: Greenwood Press, 1999.

Schäfer, Andreas, et al., *Transportation in a Climate-Constrained World.* Cambridge, MA: MIT Press, 2009.

Schurman, Rachel, and Dennis D. Kelso, *Engineering Trouble: Biotechnology and Its Discontents.* Berkeley: University of California Press, 2003.

Scott, Virginia, *Google.* Westport, CT: Greenwood Press, 2008.

Siciliano, Bruno, and Ousamma Khatib, eds., *Springer Handbook of Robotics.* Berlin: Springer, 2008.

Standage, Tom, *The Victorian Internet.* New York, Walker, 1998.

Stoll, Clifford, *Silicon Snake Oil: Second Thoughts on the Information Highway.* New York: Anchor, 1996.

Sweet, Kathleen, *Aviation and Airport Security: Terrorism and Safety Concerns,* 2d ed. Boca Raton, FL: CRC Press, 2008.

Thomas, Robert J., *What Machines Can't Do: Politics and Technology in the Industrial Enterprise.* Berkeley, CA: University of California Press, 1994.

Turnley, A., *National Strategy for Protecting the Infrastructure: A Visionary Approach.* USAWC Strategy Research Project. Carlisle Barracks, PA: U.S. Army War College; 2004.

The Urban Land Institute and Ernst & Young, *Infrastructure 2009: Pivot Point.* Washington, DC: Urban Land Institute, 2009.

U.S. Department of Homeland Security, *Critical Infrastructure and Key Resources.* 2010. http://www.dhs.gov/files/programs/gc_1189168948944.shtm

Vaughan, R., and R. Pollard, *Rebuilding Americas, Volume 1: Planning and Managing Public Works in the 1980's.* Washington, DC: Council of State Planning Agencies, 1984.

Vogt, Donna U., *Food Biotechnology in the United States: Science, Regulation and Issues.* Washington, DC: Congressional Research Service of the Library of Congress, 2001.

Volti, Rudi, *Society and Technological Change,* 6th ed. New York: Worth, 2009.

Wallach, Wendell, *Moral Machines: Teaching Robots Right from Wrong.* New York: Oxford University Press, 2009.

Weatherford, B. A., H. H. Willis, and D.S. Ortiz, *The State of U.S. Railroads: A Review of Capacity and Performance Data.* Santa Monica, CA: Rand Supply Chain Policy Center, 2007.

Winkler, Kathleen, *High Tech Babies: The Debate over Assisted Reproductive Technology.* Berkeley Heights, NJ: Enslow, 2006.

Wood, Gaby, *Edison's Eve: A Magical History of the Quest for Mechanical Life.* New York: Anchor Books, 2002.

Zuboff, Shoshana, *In the Age of the Smart Machine: The Future of Work and Power.* New York: Basic Books, 1988.

Zylinska, Joanna, ed., *The Cyborg Experiments: Extensions of the Body in the Media Age.* New York: Continuum, 2002.

About the Editor and Contributors

Editor

Michael Shally-Jensen is former editor-in-chief of the *Encyclopedia Americana,* executive editor of the *Encyclopedia of American Studies,* and editor of numerous other books and reference publications. He received his Ph.D. in cultural anthropology from Princeton University, having specialized in aspects of American culture and society. He lives in Amherst, Massachusetts.

Contributors

Joseph Ali is a research scientist with the Johns Hopkins Berman Institute of Bioethics, in Baltimore, Maryland. He came to the Institute in 2007 as coordinator of the Johns Hopkins–Fogarty African Bioethics Training Program, an NIH-funded research ethics training program for researchers and scholars from sub-Saharan Africa. In addition to his work with the Fogarty program, he provides project coordination for an NIH challenge grant exploring the U.S. research oversight system and facilitates an NIH-funded project focusing on informed consent. He is also a Pennsylvania licensed attorney.

Ryan K. Baggett is the deputy director of technology and information services at the Eastern Kentucky University Justice and Safety Center in Richmond, Kentucky. In this capacity he manages programs from the U.S. Department of Homeland Security. Additionally, he is an adjunct instructor for the Eastern Kentucky University Department of Safety, Security, and Emergency Management. He holds a master's degree from Eastern Kentucky University and a bachelor's degree from Murray State University.

Heather Bell is a freelance writer based out of Winnipeg, Manitoba. She has a BSc from McGill University and a diploma in creative communications from Red River College in Winnipeg, Manitoba.

Nancy D. Campbell is an associate professor of science and technology studies at Rensselaer Polytechnic Institute in Troy, New York. She is the author of *Using Women: Gender, Drug Policy, and Social Reproduction* (2000); *Discovering Addiction: The Science and Politics of Substance Abuse Research* (2007); and, with J. P. Olsen and Luke Walden, *The Narcotic Farm: The Rise and Fall of America's First Prison for Drug Addicts* (2008). She has also written on the history of harm reduction drug policy; sweat-patch drug testing; and feminist science studies.

Robert William Collin is the senior research scholar at Willamette University Center for Sustainable Communities in Salem, Oregon. His published works include *Battleground: Environment; The EPA: Cleaning Up America's Act;* and, with Robin Morris Collin, *The Encyclopedia of Sustainability,* all published by Greenwood Press.

Pamela A. Collins is the executive director of the Justice and Safety Center, housed in the College of Justice and Safety at Eastern Kentucky University in Richmond, Kentucky. She is a professor of both undergraduate and graduate security studies. Currently she serves as the principal investigator on three key Department of Homeland Security projects. She has written numerous publications relating to security and homeland security/crime prevention, campus security, drug testing, physical security, and workplace violence.

Jennifer Croissant is associate professor in the Department of Women's Studies at the University of Arizona. Her research interests fall into the area of the sociology and anthropology of knowledge, science, and technology.

Jason A. Delborne is assistant professor of liberal arts and international studies at the Colorado School of Mines in Golden, Colorado. His research and teaching focus on the intersections of science, technology, society, and policy.

Gareth Edel is a graduate student in science and technology studies at Rensselaer Polytechnic Institute. He has worked in medical advertising and social work education. His research interests include the history of medicine and the biological sciences as well as and studies of knowledge and authority.

Bartholomew Elias is a specialist in aviation policy for the U.S. Congressional Research Service (CRS) in Washington, DC. He is the author of *Airport and Aviation Security: U.S. Policy and Strategy in the Age of Global Terrorism* (2009).

Michael H. Farris is manager of the Learning Technologies Group at Red River College in Winnipeg, Manitoba. He holds a Ph.D. from the University of Toronto.

Scott M. Fincher is a news- and photo-editing veteran of the *Chicago Tribune* and *Chicago Sun-Times.* His photos are collected internationally. Scott's work has received many awards, including a certificate of excellence in *Applied Arts* magazine because of his work in Canada's 2009 sports photo competition. He also received a judge's prize in the University of Chicago's "City of Man" exhibition.

Jill A. Fisher is assistant professor in the Center for Biomedical Ethics & Society at Vanderbilt University. She is author of *Medical Research for Hire: The Political Economy of Pharmaceutical Clinical Trials* (2009).

Karl F. Francis lives and works in the Capital District of New York State. He has completed graduate work in both science and technology studies and social welfare. His interest in public health and policy is related in part to his current work as a community advocate for people with disabilities.

Laura Fry is currently researching the social construction of the HPV virus as a doctoral student at the University of Arizona and is an adjunct instructor in sociology at Northern Arizona.

Jayne Geisel is a horticulturist and landscape architect and is an instructor in the Greenspace Management program at Red River College in Winnipeg, Manitoba.

Jerry Johnstone is an instructor and project coordinator for the Technology Solutions industry training initiative in the civil engineering technology department at Red River College in Winnipeg, Manitoba.

Abby J. Kinchy is assistant professor in the science and technology studies department at Rensselaer Polytechnic Institute. She has a variety of research interests, including food, agriculture, biotechnology, and rural communities; environmental politics and history; social movements and participatory science; and expertise and democracy.

Anne Kingsley is a Ph.D. candidate and undergraduate writing/composition instructor at Northeastern University. She is interested in gender and cultural studies, 20th-century women's writing, and the history of women's rhetoric.

Sarah Lewison is an interdisciplinary artist and writer interested in economics and ecology. She is assistant professor in radio and television at Southern Illinois University, Carbondale. Her teaching and research areas include media and social change, ecological pedagogy, and experimental performance. Her video work includes the documentary *Fat of the Land,* which screened on PBS and elsewhere.

Jessica Lyons is a doctoral student in science and technology studies at Rensselaer Polytechnic Institute. Her current research examines contemporary whaling as a case study for global environmental policy. She is a graduate of New York University's John W. Draper Interdisciplinary Master's Program in Humanities and Social Thought.

Steven T. Nagy holds a BSc (Hons.) in chemistry and physics and an MA in war studies (military history) from the Royal Military College of Canada. He is currently an instructor in air force history and doctrine at the Canadian Forces School of Aerospace Studies.

Hugh Peach is president of H. Gil Peach & Associates/ScanAmerica and provides strategic policy, planning, and evaluation support primarily to utilities and regulatory authorities.

Alexandre Pólvora is a Ph.D. researcher at CETCoPra/Center for the Study of Techniques, Knowledge and Practices, the philosophy department at the Université Paris 1—Panthéon-Sorbonne, and also a Ph.D. researcher in the sociology department of ISCTE/Lisbon University Institute.

Stephen Potthoff is assistant professor of religion and philosophy at Wilmington College, in Wilmington, Ohio. His most recent research involves an archaeological project in Carthage, Tunisia.

Michael Prentice is a graduate of Brown University with a degree in linguistics and anthropology. He currently lives in New York City and works in the advertising and branding industry.

Nina E. Redman is a reference librarian at Glendale Community College, Glendale, California. She is the author of *Food Safety: A Reference Handbook* (ABC-CLIO, 2007).

Selma Sabanovic is assistant professor in the School of Informatics and Computing at Indiana University. Her research explores how robotic technologies are designed and perceived in different cultural contexts and how human–robot inter-action research can be used to develop and evaluate models of social cognition. She is currently working on a book project about culturally situated robot design.

Kathryn E. Scarborough received her doctorate at Sam Houston State University. She has authored or coauthored numerous journal articles and three textbooks, including *Police Administration* (2010), with Gary W. Cordner. She is currently on leave from the department of safety, security, and emergency management at Eastern Kentucky University. Her primary areas of interest are homeland security, intelligence, cybersecurity, police administration, and law enforcement and security technology.

Debra Ann Schwartz is a veteran reporter specializing in science and the environment. She holds a doctorate in journalism and public communication from the University of Maryland, where she acquired expertise in scholarly editing and personal narrative writing. She is listed on the Fulbright Specialists Roster, which allows businesses and schools to request an individual's services and receive partial funding from the Fulbright Commission. She currently lives in Tempe, Arizona.

Celene Sheppard is a recent graduate of the University of Colorado's dual-degree graduate program in law and environmental studies and is an associate at the law firm of Snell & Wilmer in Phoenix, Arizona.

Ruth Ann Strickland is a professor of political science at Appalachian State University, Boone, North Carolina. Her areas of interest include American government, public policy, the judicial process, and administrative law. She is the author of five books, including *Campaign and Election Reform* (ABC-CLIO, 2008), with Glenn H. Utter.

Edward White is a Winnipeg-based reporter and columnist for *The Western Producer,* Canada's largest farm newspaper. He has won numerous awards for his journalism, including being named Agricultural Journalist of the Year in 2000 by the (U.S.) National Association of Agricultural Journalists. He has an MA in journalism from the University of Western Ontario.

Index